THE ACCOUNTING REVIEW

Volume XXIX
1954

Published Quarterly by
AMERICAN ACCOUNTING ASSOCIATION
COLUMBUS

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the Accounting Review

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VOL. XXIX JANUARY, 1954 NO. 1

DEPARTMENTS

The Accounting Review is published quarterly in January, April, July and October, at 450 Ahnaip Street, Menasha, Wisconsin.
Subscription price: $5.00 a year, $1.50 a single copy. Add fifty cents for each order outside the United States.
Report any change of address direct to R. Carson Cox, College of Commerce, Ohio State University, Columbus 10, Ohio.
Items of a business nature, including correspondence regarding advertising are to be sent to R. Carson Cox, College of Commerce, Ohio State University, Columbus 10, Ohio.
Correspondence of an editorial nature should be addressed to Frank P. Smith, University of Michigan, Ann Arbor, Michigan.
Entered as second-class matter at the Post Office at Menasha, Wisconsin. Accepted for mailing at the special rate of postage under the provisions of Sec. 34–40 Par. (O) provided for in the Act of February 28, 1925, authorized February 12, 1932.

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The Accounting Review

VOL. XXIX JANUARY, 1954 NO. 1

RATIONALIZATION IN THE ACCOUNTING MEASUREMENT OF INCOME*

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THE PERIOD in which we are living is one of instability and insecurity. Many things which have previously been taken for granted are being challenged. While this contributes to a feeling of uneasiness and unsettlement, it may well represent only the labor pains preceding the birth of a better and more positive future. It is our obligation to see that this materializes. Nothing is perfect. Attacks upon imperfection and inadequacy will in the long run, if we are both wise and strong, contribute to improvement. Our feelings of instability and insecurity result largely from the fact that we have not yet moved sufficiently far in the direction of substituting creative for destructive activities. This, however, will come. We will either find that the old was better than we thought, and that its imperfections were less than the imperfections of proposed substitutes, or we will replace the old with new, more serviceable, and less imperfect developments. In either case, we should better understand both ourselves and the world in which we live.

Most things are relative. In periods when conditions are settled and stable, attacks upon the existing order of things are not likely seriously to disturb basic relationships. Many imperfections and insufficiencies are regarded with equanimity and are accepted as a matter of course. Basically, most of us prefer to live at peace. When the waters are calm we prefer not to disturb them. In unsettled periods, imperfections and inadequacies are viewed more seriously. Existing relationships are disturbed and it becomes necessary to realign them. The period, therefore, is often one in which competition, especially the competition of ideas, is keen. While some of the issues in deference to the forces aligned on the respective sides may be settled by compromise, it is desirable that clear thinking be directed to the basic considerations involved. Socrates emphasized the fact that often the differences which separate individuals are deeper than they suspect, that they are frequently differences in basic definitions, basic assumptions, and basic philosophy, rather than in the superstructure toward which argument is so commonly directed. It was Socrates' view that when basic philosophical differences are settled other differences are settled more or less automatically. Thorough establishment and understanding of basic philosophy are therefore of prime importance. This is so even when settlement is to be by compromise, since it is impossible to tell how much is being compromised except when it is measured against the basic considerations

* A paper given at the Second Northwest Graduate Accounting Study Conference held at Harrison Hot Springs and sponsored by the Washington Society of Certified Public Accountants, the School of Business Administration at the University of Washington, and the American Institute of Accountants.

involved. Basic philosophy establishes the standard. It is the unifying factor in what we do.

It is natural, I suspect, that accounting should be drawn into the issues of the day and that many things which we have previously taken for granted should currently be subject to question. The areas in which accounting is of service are areas close to the core of the present day struggle. That accounting should be subject to attack and that some of its principles and practices are being questioned are merely testimony to the niche that it occupies in the scheme of things. Prominent among the difficulties that we encounter in endeavoring to work out our present day accounting differences, however, is the fact that our philosophic bases are neither thoroughly established nor thoroughly understood. These deficiencies we need to remedy. It is not possible to build a satisfactory superstructure, to maintain a strong position in the scheme of things, nor to meet in full and reasonable manner the challenge to expand our frontiers without basically unifying philosophy and thorough understanding of this philosophy. What we do must rest upon a sound basis and must proceed with knowledge of that basis.

There are those who deny the usefulness of accounting philosophy; tradition, the practice of the past, they say provides the basic support for what we do. One of the English accountants stated not so long ago that "many of us do not feel any need for a theory of profit and believe that philosophy has no place in the mundane affair of calculating income." Challenge, however, is not satisfactorily met by contending that we do what we do because it is what has always been done. This does not bridge the gap between the challenged and the challenger. Only positive philosophy is capable of accomplishing this. To take the stand that we do what we do because it is what has always been done is to take the stand that things are right because they exist. This is not sufficient in a day of challenge. The accountant's defense needs to be far more positive. He holds no such position of acceptance in today's world.

It is true of course, that things which are tried and tested by experience in all probability survive because they are found to be serviceable. The continuance of traditionally approved practices, nevertheless, is justified only if they continue to be useful. Changed conditions may justify and even require departure from past practices. Philosophy not only provides support for traditional serviceability but serves to point up its success or failure under changing conditions. Despite the fact that most of our accounting practices have met the the test of survival current conditions are such as to require a positive philosophy, positively expressed and positively understood. It is clear, I believe, that that which is traditional had its origin in reason. That these reasons meet the test of the modern challenge needs to be made evident. Not all accountants are convinced that this is the case.

ASSUMPTIONS AS RESPECTS INCOME OF BASIC IMPORTANCE IN ACCOUNTING

It is becoming increasingly clear, I believe, that the requirements of income measurement exercise the greatest influence in determining accounting principles and that they therefore exercise a basic influence in accounting philosophy. Profit is the main goal of the business undertaking and its measurement the key function of accounting. Those individuals who currently are endeavoring to point up the accounting concept of income therefore appear to be on the right track. Irving Fisher once stated that he thought the concept of income to be the most fundamental concept in economic science. While there are those, on the other hand, who hold that it

is not possible to define income in completely satisfactory manner, it is essential, I believe, contrary to our English friend, that accounting have a philosophy of profit, that it fix upon a working definition of income, that it recognize and admit any limitations of this definition, and that it be ready to compromise differences in situations in which the limitations of its definition of income may be of material significance. This is of both basic and major importance to the total accounting structure.

Accounting Income a Relative Thing.

The accountant is sometimes said to measure income differently for statement and for tax purposes and to keep different sets of records for these two purposes. It is assumed by some that such practices, if they actually exist, are evidence of dishonest intent. While this may in some cases be true, the deeper truth is that income is properly defined differently for different purposes. Different treatments may honestly be accorded a given experience when the purposive goals are different. Accounting is a means to an end and must be conducted in such a manner as to accomplish its dictating ends. This fact, though not always recongized, lies at the root of many of our differences.

Realized Income.

Of considerable accounting significance is the assumption that the measured income resultant is realized income. It is therefore that income which becomes the property of the business firm as the result of transactional experiences. In contrast to opportunity or unrealized income, accountingly measured income is *action income* resting on consummated business experiences. The product or service produced must in general be disposed of before income is properly to be booked. Any steps taken in the production of a product or a service are regarded as merely placing the business in a better position to acquire future income but not in themselves as being productive of income, it being assumed that the business is of a continuing nature. Except for the cost incurred, productive acts, other than the sales act, are therefore placed on a par with increases in market value. Neither situation, so it is assumed, justifies the booking of income until the sales transaction crystallizes it. Generally, this system of income measurement is designated as the accrual system. This is a misnomer, however, since strict application of the accrual assumption would recognize income with the productive steps taken.

Acceptance of the realization criterion as the basis for income recognition is rooted in the venture concept of business experiences. The business unit, if you will, is viewed as organized for the purpose of aiding its owners acquire bread and wine. These are obtainable out of the excess over cost received at the time the venture product is disposed of. With the closing of the venture transaction the increased value obtained is assumed to become a separable thing. Realized income is therefore assumed to be separable income and separable income is the source of bread and wine. Incomplete venture experiences contribute only unrealized income; they are material only as respects future bread and wine and await the closing of the venture cycle before their bread and wine potential becomes fully available. Strictly speaking, the bread and wine view of income implies the cash collection of the income, since the venture transaction is not completely closed and the income involved not finally separable until the cash is collected. Recognition of income with the sales transaction is therefore not wholly in accord with the idea of separability. It does, however, move the recognition of income a step nearer to its economic accrual. Normally, the collection lag is not

great and will largely be compensated to considerable extent after the first year of activity. The gap caused by collection failures is bridged in reasonable manner by making an allowance for uncollectible accounts. In the actual situation, therefore, the separability gap is not likely to be serious. Nevertheless, acceptance of the sale as the basis for income recognition constitutes a compromise with the idea of separability in that it substitutes the collectible legal claim for the receipt of cash. It is therefore illustrative of the application of a degree of rationalization to the process of income measurement.

To a considerable extent the idea of separable income is implicit in the concept of taxable income. The transactions engaged in should provide the means to pay the tax. Transactions such as exchanges are not viewed as contributing to taxable income unless there is boot. The tax is deferred until separable realization takes place. The same reasoning is applied to installment sales, to capital appreciation, and with reverse application to the receipt of advance rentals, subscription payments, and the like. While the application of the theory of separability to the determination of taxable income may result in some inequities, it is in general both sound and practical. Were accountingly measured realized income not a close approximation of separable income, its serviceability as a tax base would involve serious difficulties.

Rationalizations respecting costs.

In the measurement of realized income cost is generally presumed to be matched against revenue, although a goodly portion of the cost is usually composed of period charges. Rationalizations of one sort or another influence to considerable extent the matching process and thus modify the amount determined to be separable income. Under the press of current conditions these tend to play an increasingly more important part in the measurement process. Cost, generally, is the price paid for an article or service. This is the definition found in most dictionaries and is, I believe, the common understanding of the term. Rationalization is employed by the accountant, however, to give it selective meaning. The use of standard costs, of direct costing, of the base stock method, and the application of the cost flow thesis for inventory evaluation purposes are illustrative, as is the current advocacy by some that depreciation be related to the cost of replacement or that a life-type method be devised for purposes of its recording. The justification for these rests primarily in some intended contribution to the managerial function or in the endeavor to provide compensations for economic influences radically at variance with the basic assumptions underlying accounting. They nevertheless succeed in modifying the bread and wine concept of income. The accountant has made considerable attempt in recent years to use terms in the accounting statements which will make them more readily understandable. The accounting meaning of income, however, will hardly be generally understood as long as the accountant uses the term incurred cost to mean other than the price paid for acquired items.

In the case of standard costs, assistance is believed to be rendered to management by segregating variances representing inefficiency, or possibly above normal efficiency, and treating these amounts as period charges or credits. The standard cost of the inventory is sometimes held to be its true cost. Inefficiency cost are costs to be applied against revenue in the period in which they are incurred. In other words, an inefficiency cost is not an inventory cost. In the case of direct costing, fixed charges are held to be period costs rather than inventory costs. This procedure is believed to assist management make its de-

cisions by divorcing to large extent variation in profit from variation in production. The practice tends to modify the economic theses of increasing and decreasing cost goods and to make the cost of manufacture, at least in so far as the inventory is concerned, a constant cost operation. And this in spite of the fact that buildings and equipment are as necessary for productive purposes as are the variable cost items, and that an important segment of the fixed items is such only because of the application of selective accounting method. While it is true that in cases in which direct costing and standard costs are used the profit measurement is modified only to the extent of the resulting differential effects upon the beginning and the final inventories, the measurement of profit is nevertheless modified. The modification is supported basically by rationalizations which separate cost charges from benefit contributions, and which basically are directed to ends other than the correct measurement of realized profit.

Costs flow thesis

The thesis of cost flows is more specifically intended to modify the measurement of profit. Bulletin 29 issued by the American Institute of Accountants' Committee on Accounting Procedures states that "Cost for inventory purposes may be determined under any one of several assumptions as to the flow of cost factors (such as 'first-in first-out,' 'average,' and 'last-in first-out'); the major objective in selecting a method should be to choose the one which, under the circumstances, most clearly reflects periodic income." But what is income and what are the criteria by which we are to determine the method which will most clearly reflect income? The accountant too often appears to use this cliché to justify practices designed to accomplish an end of which he himself often appears to be basically uncertain.

In actual experience physical goods are acquired at a cost and are disposed of at price. It would seem that from the venture or transactional view of the experience the difference between the two amounts, allowance being made for other expenses, would be profit. So viewed, goods are regarded as moving physically and their costs are associated with them throughout the process. In keeping therewith the use of the fifo, average, or lifo (small rather than capital letters) methods are designed to be convenience methods of approximating the goods flow. That approximation will contribute to the best bread and wine measurement of income which is most closely in accord with the manner in which goods are disposed of.

Bulletin 29 further states, however, that "The cost to be matched against revenue from a sale may not be the identified cost of the specific item sold, especially in cases in which similar goods are purchased at different times and at different prices. . . if the materials purchased in various lots are identical and interchangeable, the use of identified costs of the various lots may not produce the most useful financial statements." "This fact," says the bulletin, "has resulted in the development and general acceptance of several assumptions with respect to the flow of cost factors to provide practical bases for the measurement of periodic income. These methods recognize the variations which exist in the relationships of costs to sales prices under different economic conditions. Thus, where sales prices are promptly influenced by changes in reproductive costs, an assumption of the 'last-in first-out' flow of cost factors may be the more appropriate. Where no such cost-price relationship exists, the 'first-in first-out' or an 'average' method may be more properly utilized." This is a beautiful bit of rationalization. Accounting appears to have among its leaders a most respectable and capable

group of Philadelphia lawyers. On the foundation of currently accepted basic accounting assumptions how can profit be more accurately measured by processes other than the matching of identified cost and specific selling price? And why does the use of the "last-in first-out" method contribute to more accurate profit measurement where sales prices are promptly influenced by changes in reproductive costs? What can be more accurate than actual experience?

For purposes of the cost flow theory it is assumed that the inventory is composed of fungible or interchangeable items. The goods purchased are purchased for a pool and are sold from that pool. The costs of specific purchases are therefore pool costs rather than the cost of specific sales. It is further assumed that profit is best measured when the costs matched against revenue are nearest the reproductive or replacement costs which influence the determination of the sales price. This, of course, is the contention in economic thinking, but in that discipline the differential between cost and the influencing market price becomes gain or loss at the time the market price changes, allowance being made for changes in money value. Under the cost flow theory the difference between identified cost and the cost matched against revenue is not necessarily reported as gain or loss either at the date of the change in the replacement cost or at the date of sale. Since, except for savings resulting from reductions in tax rates and for the interest allocable to these savings, all methods of evaluating the inventory must result in the same profit in the long run, it would appear that the cost flow thesis merely contributes to shifting in not necessarily economically justifiable manner the recognition of gains and losses that would normally be booked under the assumption of a physical goods flow and to the smoothing of income recognition. That income as a periodically reported amount is thereby more accurately and usefully measured is subject to debate. Certainly in so far as stock values are influenced by reported or expected-to-be-reported accountingly measured profit, buying and selling stockholders may pay and receive inequitable amounts for their security holdings. Of all the cost flow methods LIFO and the base stock methods are the worst bread and wine offenders in these respects since the gap between identified costs and the costs actually charged against revenue is greatest in their case. Currently we are endeavoring further to modify the bread and wine interpretation of income by pressing for the adoption of the LIFO or market whichever is lower method of inventory evaluation. To what end?

Discussion of the cost flow thesis may be dismissed with the statement that as a matter of actual experience physical goods do flow and that costs do not flow as considerations separable therefrom. Rather, costs are flowed as a phase of rationalized procedure. This is not necessarily wholly independent of the exercise of subjective judgment. In shifting from the physical goods flow thesis to the cost flow thesis an entirely different breed of income measurement is brought into being which is separate and distinct from the actual physical experience.

Cost or market, whichever is lower

Before leaving the consideration of the part which rationalization plays in supporting recommended inventory evaluation methods and the consequent effects upon the measurement of income, brief consideration is given to the rationalization currently used to support the use of the cost or market, whichever is lower, method of evaluation. When the balance sheet was regarded as the goal statement, the use of the cost or market, whichever is lower, method was supported by the ar-

gument that it was a conservative method of evaluation. The appeal to conservatism lost much of its effectiveness, however, when the income statement was elevated to the position of primary importance. Because of the contrary influences of the initial and final inventories the measured profit may actually be greater in a given year than if cost alone were used. The supporting rationalization now rests upon assumptions respecting the utility of the inventory. Bulletin 29 states that "A departure from the cost basis of pricing the inventory is required (note that it is not subject to choice) when the usefulness of the goods is no longer as great as its cost." It is further stated that "the term 'market' is—to be interpreted as indicating utility on the inventory date . . . ." In other words, when the inventory decreases in usefulness it is to be evaluated at market. Although the bulletin does not specifically state what is meant by the terms "usefulness of the inventory," presumably it is the ability of the firm to realize a normal profit upon its sale. Assuming a corresponding decline in the selling price the profit contributing potential of the inventory declines when its replacement price declines. Hence adjustment must be made against the revenue of the year in which the price decline takes place so that the year when the inventory is sold may be enabled to report a normal profit. If the rule is followed to its logical conclusion, it would appear that except under seriously abnormal conditions the sale of the inventory cannot contribute to a loss. Losses can only result from the sale of goods both acquired and disposed of in the same period. While the hands are the hands of Esau the voice remains the voice of Jacob. This reoriented argument is designed merely to bring the stated support for the use of the traditionally much used cost or market, whichever is lower, method of inventory valuation more in line with an income statement point of view of the case. A decline in the market value of the inventory is booked for the purpose of modifying the transactional bread and wine interpretation of income. Economic opportunism rather than the closed venture experience is made the basis of income recognition.

In the newly stated argument declines in market value are classified with physical deterioriation and damage, and with obsolescence. These latter three, however, represent changes in the physical or economic character of the goods. The former represents a change only in the economic value of the goods. Modifying the income measurement for physical changes is consistent with the physical goods flow theory, since after the changes take place it is a lesser physical thing which flows. Obsolescence changes the economic character of goods. The recognition of decreased market values, however, is more in line with the cost flow thesis in that the decreased costs will be more nearly like those which influence the sales price.

Depreciation

Rationalization also appears in the accounting literature in arguments advocating the modification of depreciation procedures. It is argued that some sort of LIFO method should be developed to modify the depreciation amount charged against revenue or that depreciation should be based on the cost of replacement rather than on original cost. Greater difficulty is being encountered, however, in securing the adoption of proposed modifications. Less frequent replacement of fixed assets makes the development of an acceptable LIFO method more difficult. Relating the depreciation charge to the cost of replacement rather than to original cost would, under current conditions, mean that in some cases increased wealth is acquired without the necessity of reporting it as income. To accomplish this real-

ized income would be understated and thereafter carried as a secret reserve. The bread and wine view of income would therefore be modified correspondingly.

The going concern postulate or principle of permanence is frequently advanced to support the thesis that depreciation should be based on the cost of replacement. It is held that before there can be profit revenue must provide, prorata, the means for replacing the assets used. When replacement costs increase, the depreciation charge must be increased correspondingly. Income would therefore need to be interpreted not as an excess left over after the relative incurred costs have been deducted but rather as an excess left over after the means of maintaining the asset stock have first been acquired. To the extent that the new or replacement assets are more valuable than the assets disposed of, even if of no greater physical quantity, revenue will have enabled the business to become better off without the necessity of having had to report that fact as income. When the depreciation charge is based on original cost, increased replacement values, in so far as they are reflected in revenue, are normally picked up and reported as an implicit part of the customarily recognized realized operating profit. While it would be preferable to segregate these amounts as capital gains, it would seem, nevertheless, that in one way or another they should be reported as income. Rationalization applied to the going concern concept ought not be permitted to prevent the accomplishment of this fact. Such gains (and losses) are an implicit factor, to say the least, in the computation of bread and wine income.

This same kind of thinking is also evident in the arguments used in connection with the evaluation of the inventory. It would appear that under the LIFO method actual realized gain, at times, also fails to be reported and that secret reserves are thereby introduced into the accounting picture.

Convenience modifications

Rationalization is also used to justify the modification of the bread and wine view of income in connection with the periodic charging of such items as maintenance, various corrections, and the like against revenue. It is argued that compensation can generally be relied upon to supply the necessary correction and that any uncorrected amounts will have a relatively immaterial effect upon the final result.

Convenience and immaterial modifications of the income measurement can be excused on the basis that it is practical so to handle them. Often as a practical matter it is not possible to work out exact cost allocations and in many cases it would be too expensive to endeavor to do so. The resultant figure is therefore acceptable for most purposes even though theoretical requirements are violated to some extent in achieving it. It is important, of course, that the treatments resting on convenience and immateriality not be extended beyond reasonable limits and to realize that for some purposes these limits are more narrowly confining than for others. The rationalizations advanced to support the cost flow theories and the theory that depreciation should be based on the cost of replacement, however, are of a different nature and a different explanation must be looked for to explain their presence in current day thinking.

INFLUENCES BEARING ON INCOME MODIFYING RATIONALIZATIONS

Transition of accounting ends.

Bulletin No. 1 issued by the American Institute of Accountants' Committee on Accounting Procedure states that corporation accounting is to be regarded as one phase of the working of the corporate organization of business, that "The uses to which the corporate system is put and the controls to which it is subject change from time to time . . . " that "In the last forty

years the outstanding change in the working of the corporate system has been an increasing use of it for the purpose of converting into liquid and readily transferable form the ownership of large, complex, and more or less permanent business enterprises," and that "This development brought in its train certain uses of the processes of law and accounting, which have led to the creation of new controls, revisions of the law, and a reconsideration of accounting procedure." The bulletin further states that "As a result of this development in the field of accounting, problems have come to be considered more from the standpoint of the current buyer or seller in the market of an interest in the enterprise than from the standpoint of a continuing owner. The significance of this change is perhaps not yet fully appreciated . . . ; but as long as the practice exists accounting must have due regard for it." In other words, the bread and wine view of separable, realized income requires and is accordingly undergoing modification.

Accounting is a purposive thing. We are beginning to comprehend to greater extent the significance of this fact. There are a number of ends to be served; these are not necessarily served equally well by the provision of the same kind of data. Purpose should be used as a criterion by which the means are judged. Tradition therefore loses some of its controlling influence and logical, philosophic analysis gains in importance. This in all probability accounts for some of the rationalizations previously presented. They represent phases in the transition of purpose.

For a considerable period accepted accounting has been presumed to set forth the business entity's transactionally determined historical relationship to its assets and equities, and income has been presumed to be secured through the medium of transactionally consummated experiences. This procedure was believed to be of service to continuing owners. Paralleling the transactional experience, however, has been an economic value experience between the two of which there has often been a considerable gap. The economic value experience and the economic value status are of far more importance for purposes of many managerial decisions, for purposes of current buyers and sellers in the market (that is, changing ownerships), for purposes of price setting, and for purposes of borrowing funds than is the historical transactional experience. Rationalized modifications introduced into the traditional historical experience, however, will scarcely enable accounting fully to meet the needs of these ends. They require the presentation of different data. Accounting, modified by the rationalized changes, will therefore likely serve neither purpose fully. It would have been better not to have introduced the rationalized modifications but to have made specifically those adjustments which are consistent with the heart and nature of the problem involved.

Unsettled Economic Conditions

To a considerable extent the rationalized modifications introduced into the income measurement process may also be traced to the press of currently prevailing conditions. Necessity is the mother of invention. One of our accounting postulates or working assumptions has maintained that the value of the dollar remains constant, or at least that changes in its value are so insignificant that they may be ignored. Actual experience belies the assumption. Bread and wine income is in reality seriously affected thereby. All sciences are based upon working postulates. When conditions so change that any assumption fails to meet the requirements of working conditions, however, it generally is discarded. Accounting, on the other hand, seeks to retain its postulates but endeavors to adjust its produced results by the application of

modifying rationalizations. Rather than discard fiction widely inconsistent with reality, other fictions are introduced to serve as correcting elements.

The failure of the application of the unmodified constant money value postulate to meet all the requirements of equity is well illustrated by a story told in England, which some of you may have heard. According to the story, a Chinese merchant named Sin Tu Bad who lived in Singapore invested $7 (or the equivalent in Chinese money) in a sack of rice in 1941. Unfortunately the Japanese invaded China shortly thereafter. Sin Tu Bad, visualizing hard times ahead, hid the rice in his attic and turned to manual labor to earn his living. A few months later, discovering that the rice was beginning to get mouldy, Sin Tu Bad sold it for $20,000 of the then highly depreciated currency. Still later, believing that conditions would further deteriorate, Tu Bad reinvested in rice the $20,000 received from his previous sale as well as $5,000 that he borrowed from his cousin Lend Mo. Because of further depreciation in the currency, however, the $25,000 bought only one-half of a sack of rice. About this time Sin Tu Bad asked his accounting friend Ung Do-Same-Way to compute his profit and the amount of the income tax which he owed the government. Applying traditional methods, Ung Do-Same-Way arrived at a profit of $19,993, the selling price, $20,000, less the money cost of $7. The income tax, determined on the basis of a high surtax bracket amounted to $19,498. When the tax collector came to collect the tax, Sin Tu Bad complained that he could not possibly have made the computed profit and therefore could not possibly owe the amount the tax collector sought to collect from him. Said he, "Only a short time ago I had one sack of rice and no debts, now I have only a half a sack of rice and am $5,000 in debt. How can profit possibly exist under these circumstances, and how can I possibly owe so large a tax?" To which the tax collector replied, "I am only a tax collector. You should ask these questions of your accountant. He computed both your profit and your tax. Who am I to question the principles and procedures followed by one so learned?" Whereupon he led Sin Tu Bad off to the State Prison. Poor Sin Tu Bad, he suffered for his accountant's inflexibility; he was a victim of accounting tradition.

The deficient factor in Sin Tu Bad's situation was the assumption that cost and selling price were expressed in units of the same meaning. They were not. The fact that both the cost and the selling price of Sin Tu Bad's rice were designated as dollars ought not obscure this fact. To accomplish its objectives accounting must make use of the money tool. The tool is a deficient one, however. To compensate for the deficiency of the money tool, we have introduced into the income measurement process rationalized modifications that are inconsistent with reality, outstanding among which is the use of LIFO. It might appear, therefore, that Sin Tu Bad merely lived too early and in the wrong country. The use of LIFO and other rationalized modifications will not as a general thing accomplish the necessary correction, however, since as stated earlier they merely shift the recognition of profit from one period to another. None of the accepted cost methods can do otherwise. Only by accident will either short or long run income measurements determined through the medium of compromising, rationalizing measurement procedures approximate those which would be the resultants were direct methods of measurement used which make due allowance for changes in the measurement capacity of the money tool. The changing dollar value experience is not likely to be a circuit experience or if it is completion of the circuit is not likely to

be experienced in the individual case. Of somewhat compensating nature in the situation, perhaps, are possible changes in tax rates and savings in interest. What is really needed in situations like Sin Tu Bad's, nevertheless, is the inclusion of data other than strictly money costs. These require direct and specific adjustment for changes in money meaning.

CONCLUSIONS

The desire to use only objectively recorded figures has had great influence in the development of our rationalized modifications. To accomplish adjustment of the income measurement what appears to be needed under currently accepted accounting thinking is ingenious argument supporting manipulation of the use made of recorded figures. In so doing we both admit and deny the reality of experience other than that recorded in the accounts. When in the twenties and thirties management in response to pressures similar to those we now face endeavored to have reflected on the books and in the statements the replacement values of assets, the accountant, to say the least, was disturbed. In the current experience, although he prides himself that he is maintaining traditional appearances, the accountant has to considerable extent capitulated. The capitulation, however, is subtle in that it is accomplished through modification of the older procedures within the overall cost process. Some time ago a friend remarked to me that life is not logical. I suspect, that he might be surprised to see how logical are its developments were he but in a position to appraise them. It is amazing to see how the accountant with the help of fiction endeavors to approximate in accomplishment results which he would refuse to accept if accomplished even more accurately without fiction. It is further instructive to watch the accountant endeavor to support illogical procedures with logic. One sometimes wonders whether we have not strained at the gnat and swallowed the camel. We have in some cases drawn a line between the income statement and the balance sheet and accorded the two different philosophical bases—or have endeavored to do so. We maintain that our accounting is a historical process but the history which our statements summarize is a rationalized history and not the history of the items and the events which the statements are intended to depict. We contend that cost is the basis of record and then proceed to define cost in a manner foreign to its customary meaning. We argue that profit realized because of increases in market value is not profit because we need to reinvest it to restore the original goods position, in spite of the fact that the sale which produced the profit completed the original venture and that the reinvestment begins a new venture. We hold that losses may properly be booked before realization takes place but that gains may not be so booked. At the same time we argue that depreciation should be related to the cost of replacement and in evaluating the inventory on a cost or market whichever is lower basis grant the aggregating of the market value the status of an acceptable procedure, thereby picking up unrealized gains as well as losses. In doing these things we all too frequently deny the influences which compel us to do what we do. While the data exhibited in the statements are drawn from the record of objective, historical experiences, we nevertheless contend that they are what they are not. In the case of LIFO, at least, the objective historically determined figure exhibited in the balance sheet exhibits the objective history of a past and irrelevant date. We claim that the result of our procedures is a practical measurement of income and income becomes what it is because we find it practical to measure it as we do.

It would appear that we have reached

the day when it is desirable to review our thinking from the ground up. Rationalization has been built upon rationalization to the point where its acceptance is questionable. In some cases we have introduced the new while still contending that we are keeping the old. Our postulates and stated objectives greatly need to be re-examined. We need to sharpen our concepts and to construct a more unified and more realistic philosophy. These needs are being brought to us in more forceful manner by our increasing consciousness of the expanded number of ends to which it is being recognized that accounting can be serviceable and by the pressure of economic conditions. These are implicit phases of the world in which we live and are not to be denied. Much of what we have done to date is predicated on the requirements of what we hold to be objectivity. Objectivity defeats its purpose, however, if it results in the provision of irrelevant rather than relevant data. Nor will rationalized modifications of procedure, no matter how ingenious, necessarily bridge the gap between the two. Of this we already have too much.

INVENTORY VALUATION—THE ACCOUNTANT'S ACHILLES HEEL*

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MOST of the everyday problems which plague practicing accountants in the realm of inventory accounting are somewhat divorced from the theory of inventory valuation and its inevitable relationship to income determination. With the practical inventory problems of verification, accountability, and control, you as practitioners are far more familiar than am I, and I shall not presume to burden you this morning with any ivory tower advice on the subject. Instead I should like to entice you to stand back and take a bird's-eye look at some questions currently at issue in the field of inventory valuation—and in particular to look at them in their perspective against the background of some fundamental theoretical concepts in accounting.

Any accountant worth his salt has learned long ago to shy away from the word "value." The "value" of something implies its worth, and you don't have to be a timid soul to shudder at the insuperable problems which surround an attempt to determine the worth of anything.

In part this is because value, like beauty, lies in the eyes of the beholder. Examine the horrible abstract painting which adorns a friend's living room and then note the obvious satisfaction he gets from owning it. Remind yourselves of the times you have seen a seller and a buyer walk away from a transaction—each feeling that he has stolen the other blind.

In the business world, however, this individualistic viewpoint plays a lesser role in making value a treacherous concept than does the fact that determining the money-worth of an asset—its value is essentially a speculation about the future. This is a lesson you all learned early in your training or experience—that essentially the monetary value of any productive asset is the present discounted worth of the *future* net returns to be expected from its use. Cost, replacement cost, physical quantities, operating characteristics—all are secondary to a careful, well reasoned forecast of future earning power.

Looking at the asset side of a balance sheet, we are reminded that in this sense the accountant does come pretty close to valuing some assets. Cash, for example, causes us almost no trouble, given a confidence in the banking system. We view receivables clearly as the present right to receive money at some future date, after discounting the ability of some debtors to pay. We could come even closer to the correct value of receivables were we to apply a discount factor to allow for the fact that $1 due in 30 days is not now worth $1, and if we adjusted for prospective shrinkage through the taking of sales discounts. In most cases these factors are not material, and we are thus justified in saying that accountants *value* receivables.

Turn now to the question of inventories —product, partially completed product, raw materials, and supplies—all awaiting the ultimate fruition of the sales transaction. Value theory tells us that such inventories must be worth the present discounted amount of the net receipts which will ultimately flow into the business as a

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* This paper was given at the Second Northwest Graduate Accounting Study Conference sponsored by the Washington Society of Certified Public Accountants, the School of Business Administration of the University of Washington, and the American Institute of Accountants, held at Harrison Hot Springs, September 24-26, 1953.

result of their sale. Roughly, this is what Accounting Research Bulletin #29 refers to as "net realizable value," but it is discussed only as one element of the "lower of cost or market" rule. Accountants do not normally "value" inventories on a net realizable basis. Why?

The barrier which stands between value theory and the accounting treatment of inventories is essentially the *realization* convention. Let's take a brief look at just what is involved in this concept of realization. Realization, as I understand it, is a set of rules devised as a guide in determining when the *quality* of the evidence with respect to prospective net revenues is such that they may be directly valued as an element of the firm's financial position. In support of this position it is argued that the primary operational problem facing a firm holding an inventory of goods is to find a buyer at an acceptable price. The mere existence of an inventory and of past transactions is thus not considered good enough evidence to warrant estimating the ultimate net selling price and discounting that back to an inventory value—there are too many slips 'twixt the cup and the lip. The accountant's position is to remain neutral with respect to these prospects until better evidence is available. Now, when a sale takes place, or where production under a fixed contract occurs, or where production of goods which sell on an organized market at given prices is completed—in all these cases the accountant is willing to grant that the evidence is satisfactory. Uncertainty has been reduced to a point where the value of the prospect of future net receipts warrants recognition as an asset on the records. To put it another way—these events are deemed to constitute realization.

Now if the rule is to postpone valuing inventories until realization takes place (and they are transformed in essence into receivables), what course do accountants follow in the meantime? The answer might be that we establish a *valuation* for inventories. This, you say, is the academic mind playing with words. I think the distinction between value and valuation is, however, a useful one. By valuation I mean only that a useful relationship has been established between the monetary unit and some element of property or property rights. Valuation in this context must be judged primarily on the basis of its usefulness—if it serves well the purpose for which it is intended, and everyone understands that purpose, it is a useful valuation. The relationship between physical inventories and the monetary outlay necessary to bring them to their present status is a useful valuation, to be compared with a later selling price to establish a gain or loss. If the selling price turns out to be greater than expected, it may also be useful to determine that a speculative price gain has been realized as well as the normal operating margin. Thus a whole series of valuations may be used in accounting for economic events to furnish information to those concerned. The choice among methods of *valuation* rests not on any proof of the correctness of one valuation over another—but on questions of logic, usefulness, and measurability.

This gives us only a highly subjective basis for judging various methods of inventory valuation. If we wish to estimate what inventories are worth—it seems evident that the best evidence is the discounted estimated future net selling price. If we agree not to do this until realization occurs, then the primary issue must be the purpose to be served by inventory valuation. The answer seems evident: we are interested in attaching a valuation to inventories in order to determine periodic realized monetary income—and we must then ask ourselves, what do we mean by income?

An English economist, J. R. Hicks, pub-

lished in 1946 a highly theoretical treatise called *Value and Capital*.[1] He would no doubt have been surprised had he known that his discussion therein of the nature of income would receive a great deal af attention by accountants and others who were giving renewed attention to various possible concepts of business income. No doubt you have all stumbled across Hick's definition of income in the recent literature. As applied to a business enterprise it runs something like this: *Business income is the maximum amount a company could distribute during a given period of time and remain as well off at the end of that period as at the beginning.*

Now, that definition is not operational in the sense that if we were all to agree upon it this would solve all our problems in income determination. I think as a definition it is useful because it expresses the essence of what is meant by business income. The element with which I am particularly concerned here, however, is this basic assumption that the process of arriving at income involves determining whether the business unit at the end of any period is better off, worse off, or as well off as at the beginning. Note that the definition does not say—"The maximum amount the firm could distribute without forgoing expansion, selling assets, or borrowing money. Merely could dispose of and remain as well off—in a comparable position."

There are, of course, many different meanings which could be attached to the phrase "as well off"—each involves essentially a different concept of income—but we are here concerned with the meaning inherent in the *accounting* concept of income.

Accounting income is based on what I would call a "recovery of monetary investment" concept of income. The income earning activities of a business are viewed as a series of overlapping investment and realization cycles in which available funds are committed by management in the expectation of realizing future net receipts having a present value equal to or greater than the outlay. The success of these expectations is tested periodically by comparing realized receipts with that portion of the past investment which is deemed to be related thereto. Those investments which have not reached fruition are carried forward from one period to the next to be tested for recovery against future revenues. And—a firm is generally considered as well off as before when it has recovered its monetary investment in any particular turnover of assets.

The major conceptual weakness of this approach to income is that there exists no provable theoretical basis for determining the portion of any given investment which has expired during any period. Strictly speaking the revenues of any period are a joint product of the entire resources of the firm—and there is thus no immutable principle which may be applied in determining what portion of any given revenue dollar represents a recovery of past investment and what portion is realized gain.

This does not mean that we must accept *any* arbitrary write-off of past investments. There are two major reference points available for testing the logic and usefulness of various "flow" assumptions. The first is the fact that the essence of any asset is that it represents a future service potential. Every business expenditure presumably results in the acquisition of some useful service. If at any point in time some portion of this service remains as a source of future advantage to the business, the monetary outlay involved in its acquisition, it would appear, should be a reasonable representation of the asset which exists, prior to realization. The second reference point is this underlying assump-

[1] Second Edition (London: Oxford University Press, 1946).

tion that the firm is as well off when it has recovered—in some sense—its past monetary investment. There is no point to matching revenues and costs in a vacuum—these points of reference constitute the basis for a reasoned preference for one method over another.

All this is pretty fundamental. At the risk of belaboring the obvious, I have been trying to make the point that questions of inventory valuation go back ultimately to some very basic assumptions behind the accounting process.

In the time remaining I should like to examine, in the light of the groundwork just laid, two currently significant problems in the area of inventory valuation—first the variable cost assumption which has been given a great deal of recent attention under the title of "direct costing"; and secondly, the LIFO assumption in inventory pricing, which is once more in the spotlight as a result of current attempts to gain acceptance for "lower of LIFO cost or market" for tax purposes.

Variable Costing

The term "direct costing" is actually a misnomer—"variable costing" would be a more accurate and descriptive name for the idea. But, as is the case with many pieces of terminology, an ill-fitting handle originally attached by Jonathan Harris in 1936, has somehow stuck. The idea of distinguishing between fixed and variable costs is not a new one. Professor Dohr claimed, in a recent *Journal of Accountancy* article, to have discussed the idea in a 1924 edition of his text, and economists would probably claim much earlier antecedents. The assence of the system being referred to currently as "direct costing" is that this distinction between fixed and variable costs should be built into the accounting records. The system itself is quite simple—it goes something like this:

All cost and expense accounts are divided into their two elements: those which are fixed or "period" costs and those which vary directly with changes in volume of output or operations, i.e. variable costs. This distinction is maintained in the records, and only variable costs are assigned to the product and carried through the various inventory accounts—work in process, finished product, and eventually into cost of sales. The difference between Sales and "direct" cost of sales for any period is labeled "marginal income," which replaces gross profit on the income statement. (The same classification between fixed and variable may be maintained in selling and administrative expenses and a marginal income computed after the variable portion of such costs is deducted.)

From marginal income so computed is deducted fixed costs of operations to arrive at operating income. The net effect is that all fixed costs are charged off in the period in which they are incurred, as a function of time rather than as a function of sales volume or revenues.

It should be carefully noted that, in theory at least, the distinction between fixed and variable costs differs from the distinction between *direct* and *indirect* costs. Direct costs, defined as those costs which may be associated directly with a given product or process, will be largely variable, but not entirely. There are important costs directly and solely attributable to the output of a particular product or process which are *fixed* within wide ranges of volume of operation. Likewise there are numerous elements of indirect cost which change with variations in volume over fairly narrow ranges of operation. It must be remembered that the use of direct costing involves the assumption that it is possible to distinguish objectively from among both direct and indirect costs, those costs which are fixed and those which are

variable—as a function of ***volume of operation***.

The advantages claimed for such a method of costing are numerous. Cost-volume-profit relationship data needed by management for profit planning are readily available from the accounts. Marginal income figures facilitate the relative appraisal of products, territories, and departments. Variable costing ties in nicely with standard cost systems and flexible budgets. In general, the effect on income will be to reduce reported income during periods when physical inventories are being increased (i.e. production is outrunning sales) and to increase income during periods when physical inventories are being depleted (i.e. sales are outrunning production)—this reduction and increase being in comparison with the effect of "*absorption costing*," the term now given to conventional costing methods.

In considering variable costing in its relationship to inventory valuation and thus to income determination I should like to focus attention on two points. The first is the problem of establishing some reasonably objective meaning of the concepts of fixed and variable. The separation of all costs into their fixed and variable elements is not as simple and straightforward a task as it sounds. Depreciation, for example, when charged on a straightline basis appears to be a fixed charge; yet for the most part only the obsolescence element of depreciation is truly fixed. With modern methods of "mothballing" almost the entire wear and tear element of depreciation may well be considered variable. In some industries wear and tear may be a negligible factor in useful life, in others it will be highly significant. On the other hand restrictions in current wage contracts make large portions of direct labor cost fixed in nature. If the guaranteed annual wage becomes widespread, a substantial portion of direct labor cost may in effect become a fixed charge which does not vary with volume. Are these costs to be excluded from inventory?

Some consistent assumption must be made as to the range of volume variation within which the fixed and variable assumption is framed. In the range from 0–100% of capacity, only standby costs are truly fixed. On the other hand in the 80–100% range, a large number of salary and service department costs become essentially fixed. It is obvious that if each firm makes different assumptions in this respect the results will vary widely. Another element for decision is the time factor. What is fixed with respect to monthly variations in volume may be variable with respect to annual volume variations.

Workable assumptions are being made on these points for internal accounting today, and any assumption which satisfied management is satisfactory for managerial accounting. In order to accept the results for corporate reporting, however, the public accountant must be satisfied that some standard can be derived which can be objectively verified and consistently applied. If not we may find we are approaching the "*sayso*" inventory method—inventories are what the company says they are.

There remains the question whether variable costing produces meaningful and useful financial statements for the use of outsiders. This question must ultimately revolve around the relationship between inventory valuation and income determination—and we are back to the reference points described earlier in this discussion.

Absorption costing involves the assumption that all cost traceable to the existence of inventoriable goods and services should be allocated thereto and carried forward as a representation of the future services inherent in its ownership. Variable costing

involves the assumption that only those costs which vary with volume shall be carried forward. This requires the assumption that period costs are associated entirely with the passage of time and not with the existence of inventories; i.e. fixed costs are somehow the cost of providing production facilities of a given capacity and thus unrelated to the amount of product turned out. The corollary assumption is that the firm must recover these fixed costs from the revenues of any period before it is better off—or conversely that a failure to recover them makes the firm worse off, without regard to the amount of saleable product which is on hand at the end of any given period.

This, it seems to me is regression not progress in inventory valuation. If the essence of an asset is that it represents service potential to the company, there is no logical reason which can be deduced why that service potential is best or even adequately represented by only that portion of the past investment which will vary with volume of output. Were that particular assumption to become the basis for the decision between capital expenditure and revenue charge, we should approach the cash basis of accounting in a hurry. What we are asked to do, it would seem, is to transfer what is a highly desirable idea from one basic purpose to another. As a managerial device I have nothing but acclaim for variable costing. It can be devised to fit whatever assumptions management cares to make—and these assumptions not only can but perhaps should be inconsistent from year to year as the problems facing management change. For most managerial decisions are matters of alternatives, and the fixed costs which have a tendency to be irrelevant to such decisions change with the alternative, while different kinds of variable costs come into the ascendency. In reporting progress over time however we should keep our methods of asset valuation firmly rooted in the idea that an asset represents a future service potential and that a firm which has invested in such future services is not worse off for having done so as long as the prospect exists that net realizable receipts will exceed that investment.

LIFO

Now lets turn to a method of inventory valuation designed to cope, not with fixed and variable costs, but with changing prices. LIFO, which is essentially a variation on the older base-stock method of inventory accounting, has been rationalized under a whole series of arguments in the past, and we should perhaps first clear away the deadwood to get down to current issues.

The idea of LIFO as some approximation to the actual flow of inventories from stock into production or sales has long since been abandoned. The idea that the investment in inventories is somehow irrevocably fixed is inconsistent with its classification as a current asset on the balance sheet. In tax legislation dealing with the "involuntary liquidation" of inventories during 1941–47 it was assumed that taxpayers could replace such liquidated inventory before the end of 1952—a not unreasonable presumption. Yet in the June, 1953 *Taxes*, Ray Hoffman of Price Waterhouse points out "taxpayers have not only been unable to obtain goods to replace *wartime* liquidations but have suffered further involuntary liquidations."[3] The ability to maintain an expanded volume of business while remaining in a state of "involuntarily liquidated inventories" would seem to indicate that the so-called fixed quantity of inventory necessary for operations is a very elastic concept, and certainly bears no relation to the

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[3] R. A. Hoffman, "Tax Shortcomings of the LIFO Provisions," *Taxes*, June, 1953, p. 407.

quantity of inventories on hand at LIFO adoption date.

The idea that LIFO is some sort of evolution away from the use of historical costs may appear at first glance plausible, since under "dollar value" LIFO the result may be to price the inventory at costs which were never in fact actually incurred by the firm. Nevertheless LIFO *is* a *cost* method, in the sense that it involves an allocation of the actual past investment in goods and services between inventories and cost of sales—no more and no less than actual monetary outlay is allocated.

A more persistent line of argument is that LIFO is somehow a part of an evolutionary movement from monetary income to *real* income. This argument has a distinct advantage in that it puts your adversary on the defensive—if *you* are dealing with reality, *he* must be arguing for something unreal and non-genuine.

In examining this argument, however, we must remind ourselves that the distinction between monetary and real is a distinction between a measuring unit and what is being measured. Changes in the general level of prices are evidence of changes in the size of the measuring unit—the value of money—and it is *this* which produces the divergence between *monetary* and *real*. Looked at in these terms it seems clear that LIFO has no strong claim to reality. In the first place LIFO results in neutralizing only those price changes affecting some given quantity of inventory which happened coincidentally to be on hand at the time the adoption was made. But even more important—those who argue for LIFO as reality fall into the well populated pitfall of confusing *any and all* price changes with changes in the *general* price level. To say that a company should price its 1953 inventories at 1938 prices because they represent approximately the same physical quantities and therefore the company is no better or worse off than before, ignores the possibility that this collection of goods almost certainly has a different significance in the economy in 1953 than in 1938. The divergence in the movement of *specific* prices in relation to the over-all average is a well known phenomenon. If the price of copper has tripled while the general level of prices has doubled, something has happened to the significance of copper in the economy. To ignore this possibility is like telling the fellow who owned a uranium mine in 1929 and still has it today that his position has not changed and therefore he is no better off in "real" terms. Something may have happened to uranium in the meantime!

Take a close look at this inherent assumption behind the decision to freeze prices as of LIFO adoption date, and you begin to see that the argument that LIFO is *realistic* has some gaping holes in it. Fortunately, many respected authorities have abandoned it.

That leaves two major strongholds left for supporters of LIFO. The first is a highly practical one. If adopted at the right time and under certain conditions the use of LIFO will almost certainly reduce total income taxes paid over a period of time. The possibility of reducing *property* taxes also exists. If an unsophisticated assessor grabs for book values, the LIFO user may find an extra incentive for its use when he examines his property tax bill. The only answer to this, I suppose, is educating tax assessors.

In advising businesses within the present structure of our tax laws the accountant is derelict in his duty if he does not advise his clients to use LIFO whenever conditions are such that it will produce a probable tax advantage. Since at present the law requires that tax-LIFO must likewise be used in corporate reporting this automatically puts LIFO on the books. Arthur Cannon has effectively battered one-half of this position by pointing out that ques-

tions of equity, and governmental fiscal policy which govern taxable income have no counterpart in questions of business accounting, and he therefore urged a clearer delineation between taxable and business income.[3] If the inference is drawn from this, however, that the solution then is to *remove* the requirement that tax-LIFO must be accompanied by the use of book-LIFO, it should be pointed out that arguments for the use of LIFO for *tax purposes alone* are weak.

Several recent studies on the problem of business taxation have reached the conclusion that LIFO as a tax device is undesirable.[4] I am not going to speculate as to how many staunch LIFO advocates would fall by the wayside were its use denied for tax purposes. Nor do I have time to fully develop the position that it *should* be denied. Briefly the conclusion rests on two major considerations. The first is inter-taxpayer equity. LIFO is not a device to reduce the total tax load—therefore it must necessarily shift the burden from one class of taxpayers to another. Since some businesses and most individuals have no compensating device to reduce taxes in times of rising prices, it appears inequitable to allow such a device to one group of taxpayers. To quote Moonitz on this point "the accounting profession should be wary, now and in the future, of new 'principles' of accounting whose major objective is to shift the burden of income tax from one group of clients to another."[5]

But an even stronger argument against LIFO for tax purposes is that its use produces results which are at odds with the presumed desirability of counter cyclical fiscal policy. The desirability of increasing the tax load and running a government surplus during periods of prosperity and inflation, and conversely decreasing the tax load promptly and incurring deficits in periods of deflation and recession is, I think, well agreed upon in principle, however inept we have been in putting it into practice. The use of LIFO operates in the *opposite* direction—by decreasing taxable income in periods of rising prices and increasing taxable income in periods of declining prices. Thus it may well be argued that as professional advisors we should inform clients of the tax advantages inherent in the use of the LIFO device; but as well informed citizens, accountants should take the lead in opposing that particular element of the tax law.

Instead through our official representatives we find ourselves urging the adoption of lower of LIFO cost or market for tax purposes.

It is interesting to note the line of argument being used. In the very nature of the proposition it is possible to transfer the debate away from the merits of LIFO as good or bad tax policy and to base the case on questions of *equity*. Some companies were able to adopt LIFO at a low point in the price cycle, while others through legal barriers, lack of foresight, or pure inertia failed to do so. Now these companies are barred from getting on the bandwagon by the thought that if prices fall below the LIFO inventory price, such price losses cannot be deducted under present rulings.

At the time the original extension of the use of LIFO was being argued before Congress there were those who said that its supporters would never face the logic of their arguments when prices turned downward. They may now wear a satisfied "I

[3] A. M. Cannon, "Tax Pressures on Accounting Principles and Accountants' Independence," ACCOUNTING REVIEW, October, 1952, p. 423.

[4] Richard Goode, *The Corporation Income Tax* (New York: John Wiley & Sons, 1951), p. 171. E. C. Brown, *Effects of Taxation: Depreciation Adjustments for Price Changes*," Boston: Division of Research, Harvard Graduate School of Business Administration, 1952). "The equity considerations for LIFO are nearly the same as for replacement-cost depreciation" (p. 76). "Our general conclusions are that historic-cost depreciation is more desirable than replacement-cost depreciation for tax determination" (p. 17).

[5] M. Moonitz, "The Case Against LIFO," *Journal of Accountancy*, June, 1953, p. 687.

told you so" smirk—but they've been outsmarted. The inevitable retreat in the face of the implications of falling prices is being handled with tactical genius. Instead of retreating over the terrain by which they advanced the beleaguered advocates of LIFO are being flown out over the ruins of their arguments in an equity helicopter.

In my opinion the real solution to the lower of LIFO cost or market argument is to eliminate the LIFO device for everyone for tax purposes. I have no real hope that this will be done—I'm merely exercising my inalienable right to fight a hopeless rear guard action. This is one of the ever present dangers facing program chairmen —whenever you give a number of people a platform, one darned fool among them is almost certain to start exercising his inalienable rights.

To those who argue for LIFO as a matter of accounting principle without regard to tax questions—the final stronghold is the question of *realization*.

This was the cornerstone of Mr. McAnly's case for LIFO in a recent issue of *The Journal of Accountancy*.[6] I think I state his position fairly, if briefly, as follows: LIFO is a device to keep unrealized income out of the accounts. As prices rise it costs more to maintain the same inventory of goods on hand. To the extent that funds are used for this purpose they do not represent realized income, for "certainly no realized profit *or loss* results from mere fluctuations in the value of things we must continue to own in order to be a going concern." Because under LIFO we do not recognize income to the extent it is represented by a gain in inventory prices, we thus do not have to report a loss when it is represented by a fall in inventory prices. Thus LIFO stabilizes earnings as they should be. Anyone who can't see this doesn't understand the realization principle in accounting.

Let's examine this reasoning in the case of a price decline. The firm has made a commitment in inventory at $1 a unit, let us say, expecting to sell for $2. Current cost is 60¢ and the selling price has fallen to $1.20. Following through on Mr. McAnly's argument, the inventory should be carried at $1 rather than at 60¢ since this decline in the investment in inventory is an unrealized loss. The firm must always carry this basic investment in inventory—which it can buy now for 60¢ per unit. Therefore the difference between its original investment ($1) and current cost (60¢), or 40¢ is freely available as disposable income without the necessity of reducing the scale of operations.

If this argument sounds somehow strange it is because I have deliberately reversed its usual direction—the case of rising prices. But if gains which must be reinvested in inventories are unrealized, it follows that losses which need not be reinvested in inventory are likewise unrealized. And if the balance sheet inventory figure is to be a meaningless residual incapable of interpretation, there seems no reason why it cannot as well be meaninglessly high as meaninglessly low. And if the problem can be solved by showing current cost parenthetically on the balance sheet, this seems as true if current cost is *below* LIFO cost as above. Furthermore there is no good reason in logic why LIFO for accounting purposes should not be adopted at the top of the price cycle as at the bottom. Inventory price losses will then not be reported and this will relieve the company of the necessity of reporting inventory price gains when they occur. In past history there is more support for the statement that pricewise what goes down must come up than for the converse that what goes up must come down—the trend of

[6] H. T. McAnly, "The Case for LIFO," *Journal of Accountancy*, June 1953, p. 691.

prices throughout history has been in an upward direction.

If proponents of LIFO would argue along these lines, I would still not be won over, but I would have a great deal more respect for their position as a valid difference of opinion as to whether *earned* income or *disposable* income should be used in business reporting. Looked at from this direction, however, the argument loses much of its flavor. Mr. McAnly in particular abandons this unpalatable hot (if not burned) potato and moves over to sample the equity argument for dessert. When prices decline, he argues, it is inequitable to deprive the firm of a deduction for these unrealized losses.

The basic flaw, in all this, it seems to me, is the assumption that we can produce *meaningless* balance sheets and *meaningful income* statements at the same time. One of the motivations behind the development of accrual and inventory accounting was to get away from the idea of income as a disposable cash balance—yet we are again and again, in the name of progress, referred back to this idea that if a dollar of revenues must be reinvested in more valuable assets it somehow should be removed from realized monetary income.

Let's start with the premise that the most recent costs are the most relevant *cost* figures which can be attached to any given collection of goods and services on the balance sheet, until such time as evidence that a reasonably certain sum of money will be realized from their disposal warrants revaluation and recognition of income or loss.

Now what is the effect of price changes on the results which will follow in the income statement? First off we should recognize that because of the time lag between an investment in resources and their ultimate disposal a business is always in a position to gain from a rise in prices and suffer from a fall, unless this risk can be hedged. For most firms there exists no futures market through which any substantial hedge can be made. Now if prices do in fact change between the time the commitment is made and the time that the ultimate sale restores the liquidity of the original investment in inventories, the monetary margin between cost and selling price will be composed of two elements: An operating margin consisting of the difference between current cost and current selling price, and a price gain or loss consisting of the difference between actual costs and current costs—i.e. costs as they are at the time the sale takes place.

I reject the assumption that this price gain or loss is not realized, since once the firm's liquidity is restored any new commitment in inventory must be made primarily because management expects net realizable value to be equal to or greater than cost. The concept of periodic realization through turnover seems to me a more useful one than the assumption of a fixed dollar investment to be congealed at some nominal figure picked out of the past, largely by accident, providing it is low enough.

But it may well be that it would be useful to disclose separately these two elements of monetary profit—the operating margin and the price gain or loss. A pro-forma statement illustrating how such a separation might be presented (not only for inventories but for all elements of operating cost) is shown in Exhibit I. This is not a new idea—it has been in the literature for some time—but I think this is a good time to give it serious consideration.

Such a statement will show that during rising prices most firms will make an operating gain and a price gain. During price declines the operating gain will be offset to some extent by a price loss. Whether these price gains and losses will offset each other over the long run thus remains clearly to be seen by all who read financial

Exhibit I

An illustration of the separation of "operating margin" from price gains and losses

STATEMENT OF OPERATIONS
Year Ended December 31, 19XX

Total Revenues		
Sales (Net of Sales Discounts, $XX; Sales Returns & Allowances, $XX)		$XXX
Miscellaneous Revenues		XXX
Interest Earned		XXX
Total Revenues		$XXX
Contemporaneous Costs (Actual Goods & Services Used Stated at Current Period's Prices):		
Materials and Supplies		$XXX
Employees' Compensation Including Contributions Toward Retirement, Unemployment & Accident Insurance		XXX
Depreciation		XXX
Purchased Services		XXX
Taxes Other Than Income		XXX
Interest on Borrowed Funds		XXX
Total Contemporaneous Costs		$XXX
Current Operating Margin		$XXX
Estimated Monetary Gain or Loss Due to Price Changes		
Excess of Contemporaneous Costs Over Actual Costs		
Depreciation	$XXX	
Purchased Services	XXX	
Excess of Actual Costs Over Contemporaneous Costs		
Materials and Supplies	(XXX)	
Add Net Price Gain		XXX
Net Income Before Taxes		$XXX
Deduct Taxes on Income		XXX
Net Income for the Year		$XXX
Deduct: Dividends to Preferred Shareholders	$XXX	
Dividends to Common Shareholders	XXX	XXX
Amount of This Year's Income Retained in Business		$XXX
Balance of Retained Income at Jan. 1, 19XX		XXX
Total Retained Income Dec. 31, 19XX		$XXX

statements. The management which shows foresight in adjusting its position to the vicissitudes of the price cycle will receive their credit when it is evident that price gains are maximized and price losses minimized. But even if it is shown that price gains and losses tend to cancel out in the long run, this does not warrant a failure to disclose them. Corporations may go on forever but the outsider's interest in their financial affairs is often ephemeral. Persons who read financial statements have a right to information concerning the impact of *all current* operating conditions on the corporation's position.

By adopting this approach the accountant is placed in the defensible position of having made a full discolsure of all information available to him. For those who believe that price gains and losses are unrealized—the data on disposable income is available to them for whatever use they wish to make of it. Those who reject this position likewise have the kind of information they desire in forming their judgement of corporate affairs. Those who wish to derive supplemental computations of "real" income have a solid foundation on which to build such analysis through the use of an index of the general price level.

I think the outstanding results of adopting this kind of disclosure would be the

impact in restoring or building (depending on how pessimistic one is) public confidence in financial statements. Management, which is deeply and personally concerned with the need for additional funds to finance replacements and expansion, is understandably enamored with any accounting device which will result in lowering income during price rises. It is entirely understandable why—pressed with higher costs, higher taxes, and demands for increased wages and dividends,—corporate management should feel strongly that a dollar which must be reinvested in more valuable inventory is not available for distribution—and thus, somehow not income. It is not quite so understandable why the dollar which need not be invested in lower priced inventories is apparently still not available for distribution.

Nevertheless, if the word independent has real meaning, the public accountant should balance this position against that of investors and other public users of accounting information. I doubt seriously whether any real service is done by acceding to management's demands and failing to disclose the amount of inventory price gains and losses. The comparability of financial statements is to a material extent destroyed, since even those companies using LIFO have adopted at different dates and therefore their base prices have been set at different points in time. Furthermore sophisticated users of financial statements will often attempt a rough adjustment of income to add back the unstated price gains—and if they are prejudiced in the opposite direction from management the result will be misinformation. Finally the omission of this information cannot help but stimulate cries of subterfuge—which appear only too plausible to the layman who sees an inventory valuation of 8¢ per pound which "fairly presents the financial position" on an item currently being exchanged on an organized market at 26¢.

On these grounds I believe the case for LIFO falls. If you tell me you are for LIFO because it reduced taxes, and Lord only knows taxes are too high—I will respect that for an honest opinion. If you tell me you are for LIFO because it is an income smoothing device, and anything which knocks off the peaks and valleys of reported income is a good thing—I recognize the usefulness of averages. I cannot respect the logic of the argument that LIFO results in a more realistic, more accurate, more truthful, or more factual presentation of periodic business financial information.

We have been presenting income statements in which price gains and losses and operational gains and losses are lumped together. To the extent that LIFO has gained a foothold, we are currently in the position of omitting some portion of inventory price gains and losses from the financial picture altogether. Rather than encourage this device even further by allowing its users to have their cake and eat it both—now may well be the time to carry the evolution to its logical conclusion, and to fully disclose both *price* and *operational* gains and losses as elements of the most useful measure of *monetary* income we can at present devise.

DEVELOPMENT OF COST ACCOUNTING CONCEPTS AND PRINCIPLES

Role of the Committee on Cost Accounting Concepts and Standards

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In some ways I find myself in a most difficult position in attempting to present the work of the Committee on Cost Accounting Concepts and Standards. Inevitably in presenting the Committee's viewpoint, I shall inject my own personal views. But perhaps this is unavoidable, for a Committee of the Association is not "an artificial being, invisible, intangible, and existing only in contemplation of law." It represents the study, the hopes, and the aspirations of individuals who have constituted the Committee over the years.

I would like first to indicate the place of this Committee within the purposes and organization of the American Accounting Association. When the American Association of University Instructors in Accounting was reconstituted to become the American Accounting Association, official purposes of the organization as stated in the March, 1936 Accounting Review were:[1]

"1. To encourage and sponsor research in accounting and to publish or aid in the publication of the results of research.
2. To develop accounting principles and standards, and to seek their endorsement or adoption by business enterprises, public and private accountants, and governmental bodies.
3. To promote studies of accounting as an agency of control of business enterprise and economic affairs in general.
4. To improve methods of instruction and to demonstrate the social benefits of a more widespread knowledge of accounting."

I would like to emphasize the first two of these purposes since they are most germane to the Committee's efforts. I am hoping that as I indicate the activities of the Committee, it will be evident that its members have endeavored to carry on within these purposes.

The Committee on Cost Accounting Concepts and Standards has a somewhat different position in the Association hierarchy than has the Committeee on Accounting Concepts and Standards. The latter committee has received from the Association essentially what amounts to a charter. Once the general committee has arrived at certain conclusions, I believe that the Committee's work will receive rather automatic approval for publication. On the other hand, the Cost Committee has never had any such understanding with the Executive Committee. The Executive Committee may, at its discretion, publish or not publish its findings.

Personally, I hope that the Committee on Cost Accounting Concepts and Standards will retain its position as an exploratory and experimental committee. As will be pointed out later, cost accounting represents the more experimental area within accounting. Since this Committee works with data that is, for the most part, a step removed from the firing line of law and tradition, it should have a freer and less official position within the Association. The Committee on Cost Accounting Concepts and Standards should be tolerated by the Executive Committee. Its findings

[1] P. 1.

should be published in the ACCOUNTING REVIEW properly labelled so as not to be construed as a report representing the views of either the Executive Committee or the Association as a whole.

I know very little of the work of the Committee on Cost Accounting Concepts and Standards prior to my assumption of its chairmanship. I do know that one committee came to the conclusion they could agree only on disagreement. Another committee through the media of a coordinated group of individual articles made a background survey of cost accounting.

That phase of the Committee's work with which I am most familiar began when the Committee was reactivated in the year 1951. Individuals who were members of the Committee either during 1951 and 1952 or both years were: George Lafferty, CPA, Houston; Samuel MacArthur, controller, Detroit; Adolph Matz, professor, Wharton School; Harry Ostlund, professor, University of Minnesota; and Vern Vincent, professor, University of Tennessee. It was not my intention to serve as chairman during 1953. I had hoped to serve only as a member of the Committee. A new chairman had been selected who wished to have the following serve under his leadership: Norton Bedford, professor, Washington University; Thomas Dickerson, professor, Western Reserve University; Robert Dickey, professor, University of Illinois; Berene Lemke, professor, Michigan State College, and myself. For personal reasons, the 1953 chairman resigned a few weeks after having been appointed. I was subsequently drafted to take his place. Although I should like as much as possible not to bring personalities into this discussion, I shall need to distinguish between the efforts of the 1951–1952 committees as contrasted to the work of the 1953 committee. A definite break in the continuity of the Committee on Cost Accounting Concepts and Standards took place in 1953. Four of the five members of the 1953 committee had not served on either the 1951 or the 1952 committees. In part, this will explain the progress made by the 1953 committee to date. The 1953 committee may not come to the same conclusions as have prior committees, but, of necessity, an evolutionary period in terms of time and effort will be required to come to any conclusion.

From the very beginning, the 1951 Committee on Cost Accounting Concepts and Standards sought for something fundamental: a statement which would clearly set forth the cost accounting area in its proper perspective. Both the 1951 president of the Association and the chairman hoped that the Committee would attempt to develop a statement of cost accounting principles.

One of the first major questions faced by the reactivated committee was its relationship to the Committee on Accounting Concepts and Standards. This question had been raised by the 1947 Committee. It was brought up by the 1951 Committee and has been, in turn, asked by the 1953 Committee. The 1951 Executive Committee wisely did not attempt to restrict the Committee as to the scope of its work. For the most part, it took a "wait and see" attitude. At the heart of the question is the relationship of cost accounting to financial accounting.

Several answers to this question were posed by the 1951 Committee. One suggestion was that cost accounting, is, after all, accounting, and that under no circumstances should the Cost Committee, the tail, wag the dog. The cost accounting area was to be considered subordinate in every way to the broader area of general or financial accounting, and, as a consequence, the Cost Committee was to work within the framework of principles, concepts, standards, and statements issued by the more general committee. This approach received the least support of any

proposed solution for reasons to become apparent as this discussion progresses.

Another proposed solution to the relationship of cost accounting to financial accounting and hence the relationship of the Cost Committee to the general committee was to divide cost accounting roughly into two areas, one to be entitled "cost accounting," the other "cost analysis." The area classified as cost accounting was to dovetail with and be subordinate to promulgations of the general committee. It was to deal with cost accounting as it directly affected published financial statements. The other area to be entitled cost analysis was to concern itself with problems of the cost accountant in preparing data pertinent to decisions of management, particularly relative to problems involving control over technical operations. As expressed by one member of the Committee, the cost accountant could be more effective the further his basic data were from the general ledger. The hope was that the cost analysis area would represent a sphere least bound by convention, tradition, and so-called general principles of accounting. This proposed solution received greater support than the first. It was discarded, however, again for reasons which will soon become apparent.

It became evident to the Committee, as its studies progressed, that there exist various degrees and levels of control, some controls taking place at what might be called operational levels of management and others merging with profit control at planning and policy levels of management. As stated by the 1951 Committee, on the first page of its Report[2]

> Cost accounting is a tool of management. In so far as it aids management in the preparation of general financial statements, it supplies data which may be used eventually as a guide to the over-all efficiency of an organization, the relative efficiency of a firm to other firms in an industry, or the relative profitableness of present pursuits of management as contrasted to alternative opportunities.

Again, in its discussion of the relationship between cost accounting and financial accounting, the Committee wrote:

> A basic objective of cost accounting stated earlier in this report is "To accumulate costs necessary to the preparation of general financial statements." In accomplishing this objective, cost accounting draws from data contained in the basic financial records. However, it refines and utilizes such data to facilitate (1) the preparation of the operating and financial budgets, thereby assisting in the establishment of a profit goal, and (2) the determination of periodic profits as well as costs related to inventories, thereby providing an over-all check on the attainment of the profit goal.[3]

I believe you will agree that this last is a most modest and prudent statement. In it we find the cost accountant pictured as dealing with data taken from the financial records, altering such data, and, in turn, funneling it back to the general financial records. In so doing, the cost accountant becomes concerned with both the overall budgeting of the organization's operations and checking the progress of such operations.

The 1951 Committee came to the conclusion that cost accounting was primarily a measurement process. Recognizing that in this measurement process cost data played a part in the planning phases of management and that such data led to financial statements, the Committee attempted to indicate specifically several points where cost accounting and financial accounting needed to come to terms, such as, for example, in connection with the dogma of consistency, the cost convention, or the convention of an accounting period.

The Committee, noting several of the "sacred cows" of accounting, was reluctant to tie itself to conventions and dogmas

[2] "Report of the Committee on Cost Concepts and Standards," ACCOUNTING REVIEW, April, 1952, p. 174.

[3] *Ibid.*, p. 180.

so interpreted which would adversely affect the measurement process. For example, the dogma of consistency has been interpreted at times to mean merely consistent application of rules regardless as to whether such rules would in themselves give rise to comparable data. The Committee, on the other hand, took the position, "Consistency, in so far as the cost accountant's efforts are concerned, must refer to presenting data having reference to similar situations in comparable form."[4]

The 1951 and 1952 Committees did not by any stretch of the imagination solve the practical day-to-day relationship of cost accounting to financial accounting or the relationship of the Cost Committee to the general committee on accounting concepts and standards. The 1951 and 1952 Committees attempted to suggest that fundamentally both the cost accountant and the general accountant were concerned with the same data but that the cost accountant would, at some points, prefer to handle the data somewhat differently.

Answering the question of relationship more directly, the 1951 Committee felt that cost accounting represented the more progressive sector of accountancy, that cost accounting to progress must remain relatively free from many of the rules and conventions which circumscribe general accounting, and that it is important that an experimental approach to cost accounting be preserved. The Committee decided there should be an integration of cost accounting and general accounting, but should the problem of choice between coordination with general accounting and effective realization of primary objectives arise, the latter should prevail. Putting the conclusion in terms of my own thinking, the Committee recognized cost accountancy more as an evolution of accounting processes as a whole rather than as either a subordinate area to financial accounting or a narrow segment of accounting concerned with specialized problems.

With such a view as to the relationship of cost accounting to general accounting, it could be argued that the Cost Committee ought to be a sub-committee of the general committee. On the other hand, recognizing the adaptiveness and responsiveness of cost accounting to management's needs, and, at the same time, recognizing the great importance attached to the stewardship function of accounts by the general accountant, there is room for another committee which may be less bound by both tradition and the law. Furthermore, of course, there have devolved upon the cost accountant technical problems in all areas of business organization. The Cost Committee believes there is a need for both the Committee on Cost Accounting Concepts and Standards and the Committee on Accounting Concepts and Standards.

The 1951 Committee started out with the objective of drawing up a statement of cost accounting principles. However, to set forth principles, it had to come to some agreement as to what was meant by cost accounting. The preceding discussion indicates part of the Committee's conclusion. During the first 7 or 8 months of its existence, the Committee spent considerable of its efforts spelling out to itself the meaning of the area for which it was attempting to establish principles.

By the time of the annual meeting of the Association at Denver, discussions of the 1951 Committee had progressed to such a point that it was possible for the chairman to present an outline of the Committee's plans to a round table session on cost accounting. Being a naturally timid man, I had asked a member of the Committee, the distinguished Professor Ostlund, to share the rostrum with me. As I later reported back to the Committee, both of us had been on the firing line.

[4] *Ibid.*, p. 181.

The round table discussions were of immense value to the Committee. They had a most sobering effect. For example, a Committee which had embarked on an outline of the "economic significance of cost minimization" was faced with discussions along the lines of the following quotation from a letter received shortly after the meeting:

> "Probably the use of the word 'minimization' is what is wrong here; apparently 'control' is meant. The economic significance of cost minimization is one thing and one thing *only:* it is the low point on the average total cost curve or the lowest average total unit cost of production. This can be made clear by uncovering an assumption which is usually implicit in the economist's discussion of cost minimization; he assumes that production is always carried on at optimum efficiency. There is virtually never any need for the economist to consider cost control or cost reduction because he has tacitly assumed that the managers of the firm have already taken the measures necessary to the lowest level *at all outputs.* Equilibrium conditions, either short-run or long-run, can be discussed in economics only when this assumption is made. Therefore, when cost minimization is discussed in economics it means the lowest possible average total unit cost of production.
>
> "The accountant, on the other hand, must not assume that costs have been reduced to the lowest level at all outputs, for it is his *raison d'être* to assist in reducing costs through cost control. It is the cost accountant's job to assist in shifting the cost curve downward.
>
> "To speak about the 'Economic significance of cost control' makes much more sense—and leaves plenty of room for valuable discussion about what the significance is."

From the floor of the round table meeting also came the thought that there are situations where management may wish to increase costs as well as to decrease them. As a consequence of these discussions, the Committee reverted to the use of the more conventional phraseology, cost control.

The round table meeting pointed to terms which had been used rather freely and without explanation. The Committee found that many concepts were utilized with a somewhat different meaning in mind in different sections of its outline. The Committeee decided therefore, to use a separate section of its Report for definitions of concepts.

By the first meeting of the 1952 Committee, I had received letters of criticism from accountants who had been sent the Report prior to publication. In some respects, it was unfortunate that the Committee did not receive their comments earlier. However, I believe it would have been difficult to get any unanimity of opinion regardless of the number of times a proposed publication had been through the critic mill. I an reminded here of an outline of a proposed textbook on cost accountancy. Two critics took opposing views on the author's approach. One "pooh-poohed" it and said it failed to relate cost accounting to management's problems The other stated that if the book did what the outline suggested, it would be a truly great book, one which related cost accounting to management problems

The criticisms received evoked considerable soul-searching on the part of individual members of the Committee. One member wanted to recall the Report and begin all over again. There was particular gnashing of teeth and tearing of hair concerning some of the definitions. We found, for example, that the pertinent term, "Replacement Cost" had been defined in the concepts section, but there was no definition of terms such as "Realizable Value" or "Disposal Value" used in another section. Of course, what we should have done was to footnote variations of a major definition. I believe, however, that any accountant who had read our definition of replacement cost would have had little difficulty in interpreting "Realizable Value" and "Disposable Value." On the other hand, we made minor but egregious errors. For example, we defined "Discretionary Costs" as "those costs which are not essential to the accomplishment of a

managerial objective." Now is the time for laughter! In self-defense, although we received a number of letters, our critics either missed this point or were extremely gracious.

I would like to comment in more detail on one or two definitions of the Committee. In attempting to define "Cost Accounting," it became incumbent upon us to define "cost." Obviously, cost accounting deals with cost. It will be remembered that on this score the 1947 Committee had defined "Cost" and "Cost of" so as to rule out "opportunity interest and other hypothetical values." The 1951 Committee felt, however, that it should seek a generic definition, one which would encompass all the many variations of cost dealt with by the cost accountant.

To those trained in economics, cost has an elemental and understandable synonym in the word "sacrifice." In all probability, the economist would be content to define "cost" as the sum of the resistances met in accomplishing a specific objective. Some economists might insist on the sum of the various resistances measured in monetary terms. To utilize the word cost in connection with accounting problems, I would be content with the definition, "Cost is business sacrifice, measured in monetary terms, incurred or potentially to be incurred to achieve a specific objective." Up to the present, at least, I cannot conceive of any specialized use of the word "cost" for accounting purposes which would not sanction this as the parent or generic definition. The Committee, as a whole, however, did not like the word sacrifice. They felt it smacked much of psychological economics which they said had no place in cost accountancy. The majority of the Committee decided they would prefer the word "foregoing" in the definition rather than the word sacrifice. The Committee's definition therefore was:

> COST is foregoing, measured in monetary terms, incurred or potentially to be incurred, to achieve a specific objective.

As a consequence, cost accounting is defined by the Committee as "the measurement of cost in accordance with the needs of business management." This definition is, by the way, a far cry from our first attempts. Just for fun let me give you the definition we had on paper prior to the Denver meeting of the Association:

> Cost accounting is that function of the whole process of accounting which deals with the provision of data necessary for the tracing of cost movements into an economic entity and the release of costs within and without an economic entity and which analyzes the various operational areas of the entity in a professional and competent manner in order to provide management with the basic information essential to the fulfillment of its managerial functions in the fields of financial decision and control of operations.

To reassure you, let me repeat, we defined cost accounting as "the measurement of cost in accordance with the needs of business management."

Critics of the Committee asked, as a result of this definition, what of the cost accountant's role in analysis, in interpretation, and synthesis of data? Of course, the Committeee might have gone on and defined the word measurement, and, if it had, it would have encompassed all of the foregoing activities as within the measurement process. Other critics felt that we were limiting the cost accountant's usefulness to a very narrow sphere to that of the management of business firms. No, this is not true. We wrote, "Cost Accounting is the measurement of cost in accordance with the needs of business management." Certainly, the new Administration in Washington would take offense if it were suggested that it was not concerned with the business of government. We felt that government as well as industry had problems of business management. I might add at this point that when we said "in accordance with the needs of business manage-

ment," we assumed an ethical business management. This, I assure you, has become fashionable again.

The Committee defined cost accounting more in terms of its every day work and less in terms of its place in the evolution of accountancy as a whole. This I believe it should have done. On the other hand, however, I wish that somewhere we might have been able to define cost accounting more in terms of its evolutionary significance, for it is at this point that there is a greater need for appreciation and understanding on the part of all accountants. Somewhere I wish we had said, "Cost accounting is the adjustment of accounts to the needs of modern society." Yes, I realize the defects of such a definition. On the other hand, how else can one give emphasis to the adaptive effect of cost accountancy upon all accounting processes?

The 1951 Report, it seems to me, presents a dynamic picture of the work of the cost accountant. Beginning with general financial statements and leading on to the more technical cost data, it pointed to the varied usefulness of accounts in the realm of managerial control and decision-making. Members of the Committee brought into proper focus a picture of the cost accountant's manifold efforts in serving management. Although, for example, the Committee recognized the importance of historical cost data for legal-financial purposes, the Committee stressed that the accountant must be ready to provide other data constructed on a variety of bases for management guidance.

In one sense, the 1951 Committee failed to meet its major objective, that of constructing a statement of cost accounting principles. However, I believe this was a necessary failure. It had first to reach an agreement on basic functions and concepts. As a personal note, I would like to add that this agreement was achieved the hard way, in many cases, individuals giving in here and there. I believe all five of the 1951 Committee learned a great deal in process of reaching agreement. Although as chairman I gave vigorous direction to the work of the Committee, I don't believe there is any significant portion of the Report not arrived at except by mutual consideration, extensive discussion, and final assent. Before going on to principles, the Committee needed to place cost accounting in its proper perspective.

The 1952 Committee took up its work where the 1951 Committee left off. In terms of Association objectives contained in the March, 1936, ACCOUNTING REVIEW, its hope was to set forth principles which:

> would furnish an essential basis of judgment in constructing and appraising financial statements. The principles accepted would not need to be restrictive, except in the sense that any proper practice restricts departure from it. They need make no demand for a rigid "uniformity" of accounting classifications and procedures, so much abhorred; they should permit wide latitude in the application of individual accounting policies and practices. They should deal more with fundamental methods of expressing accounting facts than with the extent of "disclosures" in published statements.
>
> It may be difficult to bring about an agreement as to what constitutes the only sound principle in any given case. It should not be difficult, however, to indicate in a general way the scope of the problem. That can be done best, perhaps, by stating a group of principles which *might* be adopted as fundamental to sound accounting.
>
> The essential of such a statement is that it constitute an integrated conception of the function of accounting as a means of giving financial expression to business facts.

The 1952 Committee interpreted the word principle to mean "underlying guide to action." By action, they meant the adoption by the accountant of a rule or procedure to be followed in some accounting process. The Committee felt that a principle should indicate general reasoning and guidance leading to the selection and application of specific rules. In terms of the Merriam-Webster *Dictionary*, p. 1967:

Principle, Rule are here compared in the sense of that which exercises governing or guiding influence. PRINCIPLE emphasizes the idea of fundamental truth or general application; RULE that of more specific direction or regulation.

The Committee recognized that the more general the principles constructed, the less their specific applicability. The Committee, however, took the position that there are in reality various levels of principles, that to properly discuss what to do in specific situations, the more general and fundamental propositions must be understood. That is, if later, a committee were to attempt to establish sub-principles or working rules, the 1952 Committee felt that these, to have any logical basis, must needs dove-tail with more fundamental propositions.

Prior to commencing its work, the 1952 Committee was faced with the question: Are there any principles of cost accountancy not equally applicable to general accountancy? This is an embarrassing question. It was asked and by-passed at the 1951 Round Table Meeting. It has been often asked of me via correspondence. I have been most hesitant to give an answer by letter fearing my views might be misconstrued or that I might unnecessarily offend the questioner. In part, the question is the same as that which was raised earlier in connection with the relationship of the Cost Committee to the general committee. To answer this question, a definition I gave in connection with that discussion ought to be referred to: "Cost accounting is the adjustment of accounts to the needs of modern society." To answer this question completely, cost accountancy must be placed in its proper historical perspective.

As you are well aware, periodic accounting has it roots in the Italian city states of the early Renaissance period. The system of accounts portrayed by Paciolo in 1494 sufficed for the most part the needs of business enterprise until that series of events came about which we term collectively the Industrial Revolution. With the advent of the wide-spread use of power machinery, changes took place in methods of manufacture and distribution of goods, in the financing, and in the organization and control of business. These changes made inadequate the inherited accounting mechanism. Cost accounting developed to provide data not easily supplied by the conventional accounting system. Late in the nineteenth century, crude, and for the most part, memorandum-type cost systems emerged designed to provide data relative to product costs and cost control. The cost accountant of the day was more often a shop foreman or engineer. With the passage of time, the cost accounts became integrated with the general accounts. However, in the process of absorbing the cost accounts, the general accounts changed and are continuing to change. The accrual idea shifted in emphasis from accounting by time periods to accounting for products by time periods. Problems of measuring income received increasing attention. Accumulating costs on a multitude of bases by objects and areas became routine and accepted. The concept of cost control has permeated all phases of accounting. Usefulness of accounting in aiding management to interpret economic realities has become recognized. Cost accounting has changed not only the mechanisms but the nature and approach of accountancy. Cost accounting is something more than an area; it is a mode of thought. Cost accounting represents responsiveness to business problems.

Are there any principles of cost accounting not equally applicable to accounting as a whole? I doubt it! Principles established for cost accounting are, for the most part, applicable to accounting as a whole.

To the 1952 Committee, certain prin-

ciples lay self-evident in the background of the 1951 Report. For example, portrayed through the pages of the Report was the evident implication that the cost accountant was concerned not merely with the presentation of facts, but his objective was, in so far as possible, a presentation of the truth of the facts. His objective was "to express and interpret the economic realities of a situation as accurately as possible and consequently to present valid and pertinent information upon which a reader may rely in making a decision." To the 1952 Committee, it appeared that the cost accountant was concerned with a truthful statement of inventories, a truthful statement of efficiency, and a truthful interpretation and presentation of data used in connection with business decisions.

To some, stating a principle involving the word "truth" appears to imply that the accountant might knowingly commit an untruth. I believe this argument is spurious. All of the great leaders of the western world have attempted to seek and present the truth. Seeking the truth is not *prima facie* evidence that the seeker would, is, or might be untruthful. The Committee felt that beyond and above any principles to be established for the art and science of accountancy, there lay the supreme guidance, the idea of a goal, vague and indefinite as it is, that of reflecting the truth. This concept is both relative and absolute. To the individual, there will be a truth to his every action. From the point of view of the group, the truth will vary from individual to individual. Nevertheless, to all of us living and enjoying the fruits of western society, the truth pertains to the scientific, the objective, and the accurate—to pertinent and complete information. Truth is a fundamental principle in any and all of the social sciences. The accountant, willingly or unwillingly, is and must be concerned with the truth of business data. The 1952 Committee felt that the broadest principle applicable to other accounting principles is:

> In order to provide a sound basis for decisions, cost measurements should, in so far as possible, reflect the truth.

From the few who have seen the Committee's statement of this principle prior to this meeting, reactions have varied from, "I don't quite know what 'truth' is in cost accounting" to "I like your general approach." In talking to NACA chapters on this subject, I have said that the principles of cost accounting were exactly of this character: truth, timeliness, recognition of responsibility, etc." Some of the objections raised represented a basic disagreement as to the nature of principles. The Committee felt that principles represented the general reasoning necessary to the solution of a problem where there were alternative courses of action. The rule, the Committee felt, was the more specific choice in direction taken as a result of such reasoning. A good many of our critics felt that principles ought to be closer to the specific problem involved. As was expected, the principle of truth caused the greatest reaction.

Some of the other principles stated by the Committee had to do with objectivity, comparableness, directness of tracing, relevance, and significance. The excerpts at the end of this paper will give you a more complete statement of these principles. The Committee felt that before sub-principles or rules could be logically discussed there needed to be an agreement on fundamentals. The Committee did not feel in any sense of the word that they had arrived at a definite conclusion on principles. The Committee said, "The principles stated are exploratory and tentative in nature. The objective of this Committee is to provide a base for an extended discus-

sion of cost accounting principles." The 1952 Committee hoped that the 1953 Committee would follow up this statement attempting to set forth sub-principles designed to apply major principles to specific situations.

The 1953 Committee organized late this spring has moved slowly and cautiously. Since it is essentially a new committee, it must first resolve within itself many questions solved by prior committees. Since I had planned on serving the 1953 Committee in the capacity of a member only, I hoped that out of this Committee would come an idea more tangible and acceptable than the results of the 1952 Committee. My role has been purposely that of attempting to get the membership to express its own thoughts and come to an agreement on objectives. I expressed to the 1953 Committee early this year that I hoped it would work in the area of what might be termed sub-principles, that is somewhere between what the 1952 Committee called principles and what might be called rules.

I believe the 1953 Committee has taken a most constructive approach toward the problem of principles. It is attempting to generalize various managerial problems, to then point out resulting cost problems, and lastly to arrive at generalizations concerning the cost problems. Right now the Committee has outlined managerial problems in terms of the acquisition, utilization, and tracing of resources. In turn, it has divided each general managerial problem into immediate, short-term, and long-term. The 1953 Committee has the feeling that generalizations concerning cost accounting can best be made in terms of this division of the problem.

Frankly, I feel much as an observer to the mode of attack selected by the 1953 Committee. Although I believe the Committee should attempt to get down to cases, I am perhaps so much a traditionalist that I would like the Committee first to definitely state these are the two major problems of cost accounting: (1) Providing data to further cost control at all levels of management and (2) Providing data necessary to ascertain the cost of inventories. Then I would be more sympathetic to an immediate attack on costing problems rather than coming to these problems after a study of the problems of management.

But, perhaps the management approach needs to be undertaken. Previous committees have had many letters requesting this type of study. I an fearful, however, that the Committee may lose its way in one of the following directions: (1) a statement of managerial problems, or (2) a generalized discussion of the role of cost accountancy in connection with managerial problems, or (3) the outlining of specific and detailed directions relative to either cost accounting or managerial problems. I am hopeful the Committee will, and I feel reasonably sure that it will, seek to state positively the role of cost accountancy in the solution of management problems, but, that in doing so, it will not attempt to supplant the management function. I an hoping that as a consequence of stating the role of cost accountancy in the solution of management problems, the Committee will then go on to prepare guides to the cost accountant as he faces problems attempting to serve management. The laudable objective of the 1953 Committee is to begin the construction of a statement pertaining to cost accounting problems that will be somewhat on the order of the Paton and Littleton monograph.

This has been a rather long and drawn-out discussion. Many things have been unsaid and perhaps undue emphasis has been given to what has been said. In attempting to present three years' work of a committee, this is perhaps necessary. Also, my closeness to the work of the Committee may be a handicap as well as an asset. My objective has been to present to you some-

thing of the problems of such a committee, something of its workings, and something of its results. On this last score, however, I believe it impossible to measure properly the results of any committee's efforts. A committee such as the Cost Committee gives to a small group the opportunity to explore twentieth century accountancy. In turn, efforts of the Committee are made known periodically to the Executive Committee and other interested persons in the Association. Finally, the Committee may publish a paper or papers. Whether or not the Committee's efforts result in a statement suitable for publication, the work of an earnest committee sets off a reaction similar to that set off by skimming a stone on water. Many are the effects of a Committee's work toward influencing progress in the profession. Whether you agree or disagree with what the Committee on Cost Accounting Concepts and Standards has said, I am sure you will agree that it represents a positive generating force for discussion within the Association.

Excerpts from "A Tentative Statement of Cost Accounting Principles" (an unpublished report of the 1952 Committee on Cost Concepts and Standards)

"The Committee hopes that the following principles will be received in the spirit in which they are presented. The principles listed represent a tentative and suggestive statement of cost accounting principles. The Committee would not wish the reader to infer either finality or completeness."

"1. In order to provide a sound basis for decisions, cost measurements should, in so far as possible, reflect the truth."

"2. In order to obtain useful cost measurements, such measurements should be made as objectively as possible."

"3. In order to provide data useful for the proper evaluation of business operations, cost measurements should be made in comparable terms."

"4. In order to achieve a more useful costing of an object, costs should be directly traced, where possible, to the object to be costed."

"5. In order to present the most useful data, cost measurements should be relevant to the problem or purpose involved."

"6. In order to maximize benefits from efforts expended, cost accounting measurements should deal with significant data."

"7. In order to aid management in the control of costs, measurements should be devised so as to indicate deviations from managerial standards of performance."

"8. In order to present useful cost control information, cost data should be presented in terms of managerial classifications of responsibility."

"9. For financial accounting purposes, cost data should be measured so as to indicate the investment in a unit of output with the aim of eventually properly matching that investment against income."*

"10. For financial accounting purposes, overhead cost allocations should be related in a logical manner to the basic activity which gives rise to these costs."*

"CONCLUSIONS

. . . This statement attempts to set forth those principles which do and should guide the cost accountant in his day to day efforts. The principles stated are exploratory and tentative in nature. The objective of this Committee is to provide a base for an extended discussion of cost accounting principles. It believes that such a discussion would benefit not only those who teach or practice accounting, but also those for whom accounting activities are carried on: management, owners, and all those with a stake in business enterprise."

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* Several of the members of the Committee and the advisory committee felt that these statements approached the category of rules. Nevertheless, in the light of their importance, they have been included as principles, their exact classification into principles and rules left to further development of accounting discussions in this area."

AMERICAN ACCOUNTING ASSOCIATION

Report of Standards Rating Committee

The present Standards Rating Committee was appointed in 1949 for a period of five years upon the authorization of the Executive Committee of the Association. This five-year committee continued the work of similar committees appointed and serving during the years 1947 and 1948; these earlier committees performed noteworthy service in laying the groundwork for the activities of the present committee. The present committee was officially constituted and began functioning on January 1, 1949. Meetings of the committee have been held at intervals throughout the last five years.

After extended discussion and rewriting over a period of two years this committee published (with the approval of the Executive Committee) an interim report in the January, 1951, Accounting Review. Full publicity was given to this interim report; suggestions, comments, and criticisms were solicited. Several members of the Association and other interested persons responded to the invitation. This committee appreciates the excellent suggestions made by correspondents. Their recommendations have been reviewed carefully along with the further thinking of the committee members themselves. After further weighing for about a year the problems confronting the committee, it was decided in early 1953 to prepare a final report in order to bring its current activities to a conclusion. Following this decision the committee has quite actively pursued its objectives and the present report represents the culmination of its efforts for the past five years.

GENERAL PURPOSE OF THE STUDY

The pattern of education for a career in accounting has long been a source of concern to many persons in academic as well as public and private accounting circles. The American Accounting Association, with its breadth of membership and wide range of stated objectives, is logically the organizational vehicle through which should be carried on the necessary work and thinking in reference to the standards of education for persons interested in accounting careers.

Educational opportunities for accountants have grown substantially during the past sixty years, but the avenues taken have been largely individualistic in character; this approach has stimulated much progress and has been a healthy thing in the past. The Committee on Standards Rating, however, firmly believes that the time is opportune (1) to raise the quality of collegiate accountancy education and (2) to reduce the present educational disparities which exist in the several hundred United States colleges and universities offering instruction in this area.

SPECIFIC NEEDS FOR STANDARDS

Quite early in its deliberations the committee agreed that there were several specific and pressing needs to which it should devote itself. Some of these needs are as follows:

1. It is important that there be a general recognition of the fact that university education in the training of accountants is now essential and that within the very near future such education will be viewed as mandatory.

2. There is great disparity in the proportions of general education, business education, and accounting education required by different institutions. These disparities run from programs which are primarily general education with a limited

amount of business and accounting to the other extreme of programs with heavy preponderance of courses in accounting with resultant neglect of general education.

3. Purported accounting programs are offered at many institutions quite inadequately staffed. In these instances a small staff is forced to spread its efforts over too wide a range of subject matter.

4. There is wide disparity in the quality of the teaching staff and a lack of proper standards for staff selection.

5. The excessive use of part-time instructors results in ineffective student guidance and supervision.

6. The very haphazard growth of graduate work in accounting and the offering of graduate degrees in colleges not properly staffed to provide a satisfactory graduate program have created undesirable training results.

7. Standards for graduate study are largely lacking. The growth of graduate work has been rapid and not properly planned in many cases. Too few courses of graduate caliber are offered and the first year of graduate work frequently consists merely of proliferating course work in accounting of an undergraduate character with little independent study by the student.

The committee has therefore attempted to set up a suggested program of standards to meet these needs, to minimize training deficiencies, and especially to aid substandard training programs to overcome their deficiencies.

For the purpose of the development of these standards this report is divided as follows:

A. Ultimate objectives of the education of the accountant.
B. General nature of the proposed standards.
C. Standards for staff.
D. Standards for students—Selection and performance.
E. Standards for undergraduate curriculum.
F. Standards for graduate programs in accounting.
G. Two-year graduate programs with emphasis on business administration.

ULTIMATE OBJECTIVES OF THE EDUCATION OF THE ACCOUNTANT

Three ultimate objectives of education for professional accounting are recognized. They are (a) Educating the Citizen, (b) Education in Business, and (c) Education in Accounting.

Educating the Citizen

The program of training for citizenship for men or women entering the professional accounting careers is no different from that for other college students. The curriculum should be based upon a very broad foundation in general subjects. The student should come to appreciate the arts, literature, the sciences and the social studies through his foundation courses. The primary objective of this portion of the educational program is to develop leadership in community and national affairs. Through it will come the development of a cultured and gracious personality stimulated by broad interests in wide areas of human knowledge and activity. It will inculcate a high sense of civic and community responsibility, together with broad ethical motivation. The purpose of this general education is primarily to develop an ability for sound reasoning in a civilization principally motivated by man's economic and social activities.

Education in Business

The commercial and industrial community is varied, complicated, and technical. If the accountant is to serve that community well, he must be equipped with sufficient understanding of the functioning of

the major divisions of business to permit efficient transfer of attention to different assignments in new enterprises with a minimum loss of time in making adjustments. He should inspire respect for his work through revelation of real understanding of complicated aspects of the nature and activities of the particular business enterprise. This will enable him to tender a valuable and indispensable service to management, investors, and the general public.

The internal accountant is a member of the business managerial team. The day is long past when the accountant simply records historical financial data. He needs the broadest possible understanding of business organization and operation. With such knowledge at his command he can perform his accounting duties more effectively.

The external or public accountant equally needs this understanding of business. This will enable him to attain full professional standing in the community as well as to permit him to serve his clients more satisfactorily.

Education in Accounting

The final requirement is to furnish students with sufficient training in accounting to recognize the problems they will face as accountants and to provide the tools which are useful in solving these problems.

At all times the program in accounting education should be oriented to the social and economic climate in which business operates.

* * *

The committee desires to stress two matters at this point: (1) The committee is firmly of the conviction that the career accountant is, first, a well informed citizen; second, a well-rounded businessman; and third, a proficient accountant. To meet the standards herein set forth the educational process must include and make possible the accomplishment of all three of the objectives. (2) The prevailing four-year programs do not allow enough time to train the student well in the three ways just stressed. While it may be some time before it becomes widely accepted, the committee is of the firm conviction that five or more years of university training are necessary to accomplish fully the desired educational objectives.

GENERAL NATURE OF THE PROPOSED STANDARDS

Standards may be expressed in either quantitative or qualitative terms but the most desirable standard is one which measures quality. Standards for college programs are usually set in quantitative terms—so many courses, so many credits, so many hours. Your committee recognizes clearly that purely quantitative measures fall far short of the goal it wishes to reach, namely, standards of instruction which will assure excellence of performance after graduation. Quality of training cannot be measured in quantitative terms. The accent in the standards suggested, therefore, is primarily on quality. However, certain quantitative norms are desirable in order to suggest the relative balance of work to be done.

The overall effectiveness of the educational endeavor is far more important than how many courses are studied in this or that subject, or how many credit hours are earned, or how many years are spent in residence.

The committee also wishes to stress in this general statement that the recommended standards are norms, rather than rigid, unyielding, fiats from which no exception would be tolerated. General conformance will constitute satisfactory attainment of the standards herein set forth. Educational standards should be sufficiently flexible to permit reasonable deviations. Throughout the preparation of

standards for accounting training, the committee has never believed that all university accounting education must necessarily fit into one mold.

STANDARDS FOR STAFF

For an educational process to be effective, good students and a good staff are essential. The staff and the students are of equal importance. Many persons do not fully recognize this point and the committee wishes to stress it.

The teacher should be chosen with consideration to such characteristics as moral and ethical living standards, a gracious and understanding attitude toward the student and the student's problems, a general background of cultural education together with proficiency and experience, an ability to stimulate interest, and an enthusiasm for his subject.

Personal Qualifications of Staff

The committee is of the opinion that every university instructor in accounting should possess a personality which will enable him to secure student cooperation and interest. He should be the type of person who has a truly professional attitude and who is constantly striving to improve his teaching skills and his understanding of subject matter. He should participate actively in professional organizations and contribute his talent and time to their programs.

The committee is further of the opinion that instructors in elementary accounting should hold a master's degree in accounting, or a bachelor's degree with a major in accounting plus at least two years of responsible business and accounting experience.[1] During his first two or three years of university teaching, the newcomer in the teaching field should be adequately and closely supervised by experienced staff personnel. Considerable effort should be exerted to eliminate the unfit instructor before damage is done to the instructional program.

For instruction in accounting beyond the elementary level, the committee is of the opinion that a combination of university graduate training, proven teaching ability, and practical experience in business and accounting is essential. All members of a staff with these qualities should hold at least a master's degree in accounting, and a substantial proportion should have at least a combination of five years of responsible business and accounting experience or further graduate study in business and accounting.

Administrative

Teaching Loads: Quantity. For instructors at the elementary level, the teaching load should not exceed twelve hours per week. For instruction beyond the elementary level, the teaching load should not exceed ten hours per week. In assigning teaching loads, the committee is of the opinion that heavy weight should be given to the total academic and professional responsibilities borne by each member of the staff. Oftentimes, there is ample justification for a sharp reduction in the teaching loads previously recommended in this section.

Teaching Loads: Variety of Courses. It should be recognized that an instructor is seriously handicapped if he attempts to teach more than two or three different courses in any one term. Neither should there be too much variety of the courses

[1] Responsible experience includes: (1) service before the public as an independent professional accountant conducting audits or doing a variety of tax work; (2) service as an advanced junior accountant, or higher in the employ of a professional practitioner who has a variety of clients; (3) service as a financial examining agent of a governmental bureau if the work involves the auditing or the investigation of business enterprises; and (4) service as a supervisory accountant in a medium or large-sized business firm which has a variety of accounting records and where the service involves the preparation of financial or operating statements.

taught by an instructor in any one year.

Adequacy of Staff. To offer the undergraduate program herein contemplated, the committee is of the firm conviction that the institution should have on its accounting staff at least three full-time instructors.

The one- or two-teacher accounting staff cannot under any circumstances provide the offerings and the breadth of training requisite to the maintenance of proper standards, regardless of the individual personal abilities and experience of such a person or persons. It is also assumed that there will be supporting course offerings in other areas of business taught by competent, trained instructors.

Where part-time instructors are employed, a majority of the members of the staff should give the greater part of their time to instruction and other academic duties.

Staff Compensation and other Incentives. The compensation of accounting instructors should be sufficiently high to compete with that paid in public and private accounting for the same amount of experience, training, and responsibility. This is the only standard of compensation that will permit institutions to attract and retain a staff of the quality herein contemplated.

As a corollary not only to provide increased compensation, but to improve quality, it is urged that accounting staffs be permitted and encouraged to engage in outside professional work. Accounting is a fundamental part of our dynamic business life, and a teacher must maintain close contact with its growth, not solely as an observer but as a responsible participant.

The criteria which it is believed are controlling are: (1) Outside work should not interfere with teaching assignments or preparation; (2) The outside work should be of a character to further the educational skill and breadth of the teacher. Other incentives to staff in their professional development such as research projects and professional society activities, should also be encouraged as a means of attracting and holding competent personnel.

STANDARDS FOR STUDENTS—SELECTION AND PERFORMANCE

The success of the program of training young men and women for the profession of accounting depends very largely upon attracting and selecting individuals of promise, capacity, and character necessary for this kind of work. The selection of the student should be on qualities of the broadest scope. Academic records, while important, should not be the sole basis for selection of persons for this training.

Not everyone is suited by temperament, personality, and mental ability to become an accountant. Those not so suited should be discouraged from majoring in accounting. Only an experienced and qualified group of instructional staff persons can be expected to have the degree of judgment required for effectively and fairly carrying out this standard.

Student performance should be judged on a broad base. Accounting majors should be encouraged to take part in student activities. They should learn to become a part of the community in which they live. Accounting students should have wide interests.

STANDARDS FOR UNDERGRADUATE CURRICULUM

For the sake of convenience and because of long usage, the committee has retained for standards rating discussion purposes the familiar four-year academic program of undergraduate university training.

In proposing standards of curriculum, qualitative rather than quantitative measures should control. The curriculum should be designed in accord with the ultimate objectives of collegiate training in account-

ancy. Those objectives again are training in citizenship, training in the broader aspects of business, and equipping the student with necessary proficiency and knowledge of accountancy. In achieving these objectives, it appears that the four-year collegiate program should be divided as follows:

I. Liberal, cultural, and general non-business studies, approximately 50% of the time.

The liberal and cultural program of studies should provide a broad training for citizenship, an understanding of the society in which the student will work, and an appreciation of the development in wide areas of human knowledge and activity.

This education should include courses in:

*Written and oral communication
*Natural sciences
*Humanities
*Social sciences, particularly political science and economics
Mathematics
Engineering
Agriculture

II. General business studies, approximately 25% of the time.

In line with the stated objectives of training in the broader aspects of business and in view of the special needs of the accountant, it is suggested that the curriculum include the following types of courses in business:

a. Fundamental and functional areas of business
*Marketing
*Production
*Finance
*Industrial relations

b. Other areas of business
*Business law
*Statistics
Insurance
Business communications and report writing
Real estate principles
Transportation
Public utilities
Office management
Government regulation

It is recognized by the committee that a number of these courses may reasonably be classified under either social science or business.

III. Accounting studies, approximately 25% of the time

In order that the student may acquire basic knowledge of the accounting field, the following course areas are recommended:

*Accounting principles, elementary, intermediate, advanced (To include the recording and summarizing process, statement preparation and analysis, problems of asset accounting, partnerships and corporations, accounting for sales contracts, fiduciary accounts, and other topics)
*Cost accounting and cost analysis
*Auditing principles and procedures
*Problems of income tax accounting
Budgeting procedures
Governmental and institutional accounting
Accounting systems and procedures

The student should possess a working knowledge of the subjects listed above though it is not necessarily suggested that separate courses be taken in each of the fields, except for the starred subjects.

STANDARDS FOR GRADUATE PROGRAMS IN ACCOUNTING

Objectives of Graduate Study

As previously stated in this report, it is the conviction of the committee that the familiar four-year program in accounting instruction does not allow sufficient time to accomplish the thorough and penetrative instruction in the three types of disciplines essential for success in the accounting field. However, the committee further is of the opinion that for the foreseeable future, the four-year undergraduate program, supplemented by graduate study, will be the standard pattern followed by educational institutions. This conclusion means that the committee is adopting the viewpoint that graduate study should be much more aggressively sponsored by institutions and that such study is not only for the relatively few who propose to be instructors in accounting, but should be undertaken by a substantial majority of

* In this and subsequent sections, courses and areas of study preceded by an asterisk are required.

all interested in a career in accountancy.

A single graduate program in accounting cannot be stipulated which will meet the needs of all students. Programs ordinarily must be devised in accordance with the particular needs of the graduate student to be determined in conference with his faculty advisor. The following objectives, however, are suggested as guides to faculty advisors in planning graduate programs:

1. Time should be provided for broadening the scope of the student's accounting, general business, and economic knowledge.
2. Opportunity should be provided for the student to become familiar with research methodology.
3. Opportunity should be provided for greater penetration of a selected area of accounting through independent study.
4. Opportunity should be provided to acquaint the student with literature, organizations, applications, and controversial concepts in accounting.

Prerequisites for Graduate Study

Graduate study in accounting should follow a four-year program of undergraduate instruction as set out on previous pages of this report. It normally will lead to a graduate degree, such as the Master's or the Doctorate, but this is not imperative. The undergraduate record of the student should be carefully appraised and evaluated in order to enable the instructional staff to discourage those candidates who have not shown sufficient scholastic ability or promise.

Standards for the Graduate Curriculum

Graduate programs should normally include at least 50% of the total requirements in the field of major interest. Also, normally, no graduate student should be permitted to study exclusively in his field of major interest.

Institutions offering graduate programs should have sufficient staff, range of courses, and graduate students to permit and require that at least 50% of all work taken in accounting be in courses primarily open to graduate students. This may include credit for a thesis if one is required by the institution or if it is elected by the student.

Institutions offering graduate programs should provide for research seminars in which the student is held to high standards of individual and independent study; there should be no compromising on the quality of this instruction.

TWO-YEAR GRADUATE PROGRAMS WITH EMPHASIS ON BUSINESS ADMINISTRATION

To qualify for a satisfactory program in accounting equal to the four-year undergraduate curriculum recommended above, graduate programs having a heavy emphasis on administration will meet the standards herein set forth, provided the institution offers instruction in accounting equivalent to that described under the section of the report headed "Standards for Undergraduate Curriculum."

M.B.A. programs, for persons who have not majored in accounting as undergraduates and wherein no field of specialization is required, cannot be evaluated for purposes of this report, although individual students may, by election of appropriate courses, obtain a program equivalent to the recommended four-year undergraduate program in accounting.

S. Paul Garner
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BUILDING RESERVES BY OVER-VALUATION OF ASSETS

Ray Bert Westerfield
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In recent months certain savings and loan associations, with a view of increasing their reserves, have been buying VA and other mortgage loans at big discounts, booking them not at cost but at par, and crediting the *discount* straightway to *earnings*, from which, at the end of the fiscal period, it is transferred to *reserves*.

Since these associations are strictly cooperatives, they have no capital stock of the kind corporations (joint-stock companies) do. The commercial banks and trust companies are incorporated and are owned by stockholders; the capital stock is evidenced by shares which entitle the stockholders to their proportionate part of the corporation's current net earnings, and of the net worth in case of liquidation. The net worth denotes proprietorship, ownership, equity; and embraces the so-called "capital accounts," namely, the capital stock, surplus, and certain reserves appropriated from surplus for specific purposes (such as sinking fund and plant extensions). It represents the residue of assets after all debts are subtracted; consequently, if it is large relative to the total debts, there is little question that the debtors could be paid in full were the bank to be liquidated even in bad times.

Except in a few states, the state-chartered savings and loan associations are not allowed to accept deposits; the savings and loan associations having federal charters are similarly inhibited. In short, the associations have no debts of consequence, except perhaps their borrowings from commercial banks or the Federal Home Loan Banks; and so almost all of their assets are owned in equity. They are owned by the investing members in proportion to their investments. These investments are evidenced by so-called "share accounts," which may be increased or decreased in amount from time to time and which semi-annually entitle the members to their proportionate share of net earnings, and in case of liquidation, to their proportionate share of net assets. These shares evidence ownership, not a debtor-creditor relationship. If, however, the members want high assurance that in case of liquidation of the association they can realize full face value of their share accounts, it is important that the net value of the assets (after subtraction of debts) considerably exceeds the face value of their share accounts. This excess is known in the savings and loan trade as "reserves." In mutual savings banks it is generally called "surplus."

Besides serving as a buffer and protection to investors in case the association is liquidated, the reserves perform additional functions. For example, they constitute an additional source of income. The earnings from total assets include returns on reinvested earnings as well as earnings from the investment of assets derived through share accounts. And so, an association with sizable reserves relative to share capital is able to offer high dividend rates to investors. It is also enabled to maintain dividend rates during adverse times, because dividends when not fully earned in a given year may be paid out of reserves. What is more important perhaps, the reserves absorb the losses on the assets owned by the association; the losses thus

do not trench upon value of the assets acquired with the net funds supplied by share account investors; and the association accordingly stays in a sound condition and continues in business during adverse times. The earnings from the assets derived from reinvested earnings or "reserve" also help to cover the expenses attendant upon securing new share accounts, and to provide for dividends thereon until the cash is converted to earning assets. Finally, the asset counterpart of the "reserves" are in part invested in bank building and other facilities which are not revenue producers; so that all the funds received from share accounts can go into loans and investments—into earning assets.

The state and federal governments stipulate, in their respective enabling legislation, that each association must provide and maintain a certain minimal amount of *reserves*. It is commonly stated that this minimum shall be proportionated to the total assets or share capital, say, 10%, so that the protection to investing members grows apace with their investment. Semi-annually the association allocates, say, 60% of its net earnings to "*dividends*," which are paid to members in proportion to their investment, and the remainder is retained as allocated or unallocated "*reserves*." By this process the successful association gradually builds sizable dollar "*reserves*"; and unless the investments of members expand too rapidly, the reserves may grow percentage-wise as well. The reserves are not cash funds set aside for specific purpose, but are composed of certain dollar values of the general undivided assets most of which are earning assets—mortgage loans and government securities.

The savings and loan association must rely almost wholly upon net operating profits as source of funds for reserve purposes. The commercial banks and other joint-stock companies, by contrast, can sell stock at a price above par and book the excess as "Paid-in Surplus." Cooperative institutions can gain additions to surplus (reserves) only through retention of earnings. Adequate net earnings are, therefore, indispensable, if the association is to attract investors by dividend rates and by safety through protective reserves.

The Federal savings and loan associations have had great difficulty in building adequate reserves. Ever since they were first established in 1934 the price and wage level has been rising; operating costs have, in fact, more than doubled. The past few years the rise in interest rates on competing investments has forced these associations to pay higher and higher dividends, if they wanted to attract new investors and to retain old ones. As against this rising cost of funds and rising cost of operation the yield of their earning assets—particularly their government bonds and insured mortgage loans—was relatively fixed and the profit margin, therefore, narrowed.

The factor which has aggravated the reserve problem most, however, is the rapid rate of growth of share accounts. The total of share capital of the Federal associations in 1939 was $1,324 millions; at the end of 1952 it was $10,035 millions. This rate of expansion was most gratifying, but it created an intense continuing problem of acquiring needed reserves.

When the Congress provided for the chartering of savings and loan associations by the Federal government, it was stipulated that the Federal savings and loan association, as well as the state-chartered associations whose accounts were insured by the Federal Savings and Loan Insurance Corporation, had to attain, within twenty years of their respective admission to insurance, and thereafter maintain, a *reserve* of 5% wholly for insurance purposes, and that they should provide additional reserves to absorb current contingencies.

The Federal savings and loan associa-

tions have, in fact, grown so rapidly that the accumulation of this minimum 5% reserve within twenty years has been a major problem of management. Inasmuch as the Federals were first chartered in 1934, the date of reckoning is at hand, and many are desperate: on their existing shares they have not attained the 5% or are thinly above it, and nowadays for every million dollars net increase of members' investment, within the year at least $50,000 of reserve must be set aside out of current earnings. With this requirement of the regulatory authorities staring them in in the face, the managers of some associations are frantically resorting to extraordinary techniques for acquiring reserves. One of these is the counting of *discounts* on purchased mortgage loans as earnings and reserves.

This method of accomplishing the goal is a poor method of accounting for a financial institution entrusted with the people's savings. The current market evaluation of VA 4% 25 year mortgage loans is slightly above 90 and even the 4½'s sell at a sizable discount. When an association acquires mortgage loans at such discounts but enters them on its books at par, it is merely overvaluing the mortgage loans by the amount of the discount.

Such overvaluation of assets provides no protection to investors in case of storm and involves a misconception of the nature of true reserves. As was explained above, reserves are kept primarily to offset the declension of value of assets in adverse times, so that there can be no question of the ability of the association to pay its share accounts at par were the association to liquidate. Overvaluation of assets avails nothing to this end and reserves so created are a snare and delusion.

The discounts at which VA mortgages are currently bought could be put into additional mortgages if the discounts were truly earned and available at the time of purchase. The asset which offsets the "discount" (on the liability side of the association's statement) is, however, wholly fictitious, being merely the amount by which the mortgage loans are evaluated on its books above their true (market) value. Such fictitious earnings cannot be invested in mortgages, bonds, or anything else; nor can they be used to pay members who are making withdrawals from their investment accounts.

Such reserves cannot be used "for the purpose of absorbing losses"; nor can an "insured institution pay dividends from its Federal insurance reserve account" to the degree it is created by capitalizing discounts. The Insurance Corporation is deceiving itself as well as the public when it parades such reserves as "insurance" reserves. They insure not one whit.

It had been the immemorial practice of commercial banks, in discounting short-term notes and commercial paper, to book them at their face value and take the "discount" into income at once. Really the computation of the "proceeds" of the paper, that is, face value less the "discount" (the interest computed on face of the paper), is merely the procedure in finding the present (i.e., at time of discount) value of the paper; and the booking of the paper at face value rather than that present value amounts to an overvaluation by the amount of the discount. At time of discount the interest allegedly "taken out" is not yet in any sense "earned"; as the paper moves toward maturity the portion "Interest taken out but not earned" decreases and the portion "Interest earned" increases, until at maturity the latter completely replaces the former, the "present value" of the paper becomes equal to the "face value," and the overvaluation on the bank's books disappears.

In 1917 the Comptroller of the Currency, John Skelton Williams, issued a memorandum to the national banks in which he criticized the custom of many

banks in crediting discount as collected directly to profits and in crediting accruing interest only after collection; he gave them a reasonable time to make adjustments, so that the items "Interest and discount collected or credited in advance of maturity and not earned" and "Interest earned but not collected" on loans and securities would be accurately reported. The time finally fixed for starting such accurate reporting was January 1, 1919. In the years starting in 1916 many articles appeared in banking journals advocating this change in accounting; the auditor of the Federal Reserve Bank of New York published a book on the subject, which outlined "a system of accruing all earnings and all expenses"; said he: "The really startling fact, to the student of accounting, is that banks ever should have followed the practice of crediting income as received instead of as earned." Bank accountants devised various techniques for handling the accruing credited discount earned and the accruing interest receivable earned. Perhaps the most complete was the so-called "Adapt System." The banking laws of the State of New York were revised, to give effect to the accrual method of accounting.

The Chief National Bank Examiner of one of the Federal Reserve Districts states that "most banks with resources of $10,000,000 or more operate on a complete accrual basis. Of course there are different accrual systems and some are more complete and complex than others. The general view is that it is questionable whether a complete accrual system in a bank with resources of less than $10,000,000 justifies the expense involved. Most banks, however, with resources ranging downward from $10,000,000 to perhaps $2,000,000 operate on a partial accrual system, particularly with respect to income collected not earned. Also most of these banks at least set up reserves in estimated amounts for interest and taxes accrued and unpaid. Of the banks under $2,000,000 in resources about half are on a strict cash receipts basis. Even in the case of a small bank which engages to any extent in consumer credit, we feel that an accrual account method should be operated for interest earned, not collected, and urge that such be done."

Surely savings institutions should be even more meticulous in not deceiving the public as to earnings and asset values. In commercial banking the overvaluation of a particular item discounted and the overstatement of earnings therefrom would last at most only a few months, within which time it would mature at par; although the overvaluation of its short-term portfolio would, of course, bulk quite large continuously. If the bank were to acquire 20, 25, or 30-year mortgages at big discounts, book them at par, and take the discount straightway into income and reserves, deception as to these asset values and as to reserves would persist through these long stretches of time.

A device permitted by the Internal Revenue Bureau helps big savings banks keep down the cost of accumulating discount and accruing premium, namely, they are allowed to accumulate and accrue on a composite rather than on an individual basis. Such banks set up their securities at cost; for those bought at a discount they accumulate the discount over the term of the securities and amortize the premium on those bought at prices above par; but this accumulation and amortization are handled by massing securities of like term. This technique distorts somewhat the true income, because mortgage loans have a high turnover and the amount of discount taken into income at the time the loans are paid off does not fully agree with the discount accumulation.

When corporate financial institutions, that is, commercial banks, savings banks,

investment trusts, and insurance companies, buy bonds at a discount, they quite universally book them at cost and take the discount into earnings only when and as earned or postpone taking it into earnings till maturity or sale of the bonds; and when they buy bonds at a premium, they book them at cost, and expense the premium wholly at time of purchase, or expense it periodically so that it will all be wiped out by the nearest call date. Even more conservative practices are followed by some institutions.

The Regulations of the Comptroller of the Currency (Section II, (4) 1938), supplemented by "Opinion 160," prohibit the purchase of investment securities at premium unless the bank provides for regular amortization of the premium so that it will be extinguished at or before maturity or else sets up a reserve to amortize the premium and periodically credits that reserve. The Regulations contain no provision for the accumulation of the discount when the bank buys bonds at a price less than par; but the Comptroller's "Opinion 620" states that "a bank's investment security account should not be written up by addition of . . . the difference between the price paid for securities bought at a discount and the face value thereof. Profit from these sources should be taken into account only when a sale has been made, or the bonds redeemed, and the profit actually realized. Therefore, the book value of investment securities purchased below par should not be gradually increased on the theory that at maturity the securities would have a value equal to par."

Following the principle of being conservative, as recommended by the Comptroller, many banks carry at cost bonds bought at a discount, until they are paid at maturity or are sold. At that date the entire discount is taken into earnings as "capital gain." In case of bond premium, the practice is reversed. They may write the premium off altogether at once or more rapidly than is required under an amortization schedule. Both of these conservative policies undervalue the bonds (assuming that the market is stable) and thereby create "hidden reserves."

The National Association of Insurance Commissioners publishes a list of securities held by insurance companies for use in the companies' annual statements. The securities are classified, among other bases, as "amortizable" and "non-amortizable," and the "amortized" value to be reported is based on the original cost to the company holding the security. As for mortgages insured under the National Housing Act, companies are allowed to take credit for the amortized value, on a five-year basis, for premiums paid; and where purchases are made at a discount, the mortgages may be written up over the life of the mortgage to par at maturity. Other mortgages purchased at a discount should be carried at cost; and the book value of those acquired at a premium may be reported at values reflecting write-offs of such premiums over a three-year period from date of acquisition.

The author is advised by two investment rating companies that although the income tax laws permit the accrual of bond discount, the accepted method of investment companies is to take into income only the interest received at the coupon rate; that later when the bond is paid off or sold at a profit a capital gain is realized and so reported (or a capital loss, if sold below cost); and that where accrual of discount is used it must be applied to all discount bonds held.

The Revenue Act of 1942 added Section 125 to the Internal Revenue Code that provides, with respect to bonds the interest of which is wholly or partially taxable, "the amount of the amortizable bond premium for the taxable year shall be

allowed as a deduction," but with respect to bonds the interest of which is wholly tax-exempt, "no deduction shall be allowed"; that in case of wholly tax-exempt bonds all taxpayers are required to amortize, but in case of fully taxable bonds taxpayers may elect to amortize or not; and that with respect to partially tax-exempt bonds amortization is mandatory to corporations but elective to other taxpayers. The Reserve Act of 1950 provided special rules applicable to dealers in securities with respect to premium attributable to certain wholly tax-exempt securities (Section 22 (0)).

Although tax accounting rules quite often depart from generally accepted accounting, in the case of handling discount on securities bought at a price less than par they are in close agreement, as the following extracts from an opinion rendered in 1936 by the United States Board of Tax Appeals (Vancoh Reality Co. vs. Commissioner, 33 STA 918) show:

"Here the petitioner did not perform any services in the making of these loans. It purchased loans made by others and paid therefor the principal of the note less an agreed percentage thereof, the difference between the face value and the amount paid being the discount. In purchasing a mortgage loan at a discount it acquired the amount paid therefor by petitioner, the excess representing the discount allowed to petitioner. The discount is paid by the borrower or the maker of the note as a part of his principal obligation. Such discount, like interest, is earned with the lapse of time. The amount paid upon the purchase of a mortgage loan represents as a practical matter the present value of an obligation to pay in the future, which in part, is based upon the extent of the unexpired term of the mortgage note, the financial responsibility of the obligor, the adequacy of the security, and the supply thereof and demand therefor. The undisputed proof shows that competition and the risks of the business were factors which affected the amount of the discount. The difference between the present value or purchase price and the face value of the obligation or note represents the discount. As the maturity of the obligation draws nearer, the value ordinarily increases. As the value increases with the lapse of time and the approach of the maturity date, the discount is being earned. Hence, where books are kept on an accrual basis, the discount should be accrued as thus earned, whether paid or not. As stated in Chicago Acceptance Co., 12 B.T.A. 150, 152, only the amount of discount actually earned in each taxable year should be included in the taxable income of that year. . . . "

One method employed by some savings and loan associations in carrying out the discount device for increasing reserves is to ask the seller of the mortgage loans to bill the buying association at par for them and to remit a check for the amount of the discount as "commission" for purchasing. On the surface it thus appears as a purchase at par and the "commission" is said to be immediately earned and therefore properly credited to earnings and reserves right away.

To the seller of the mortgage loans there is an advantage in this method of accounting, so the argument goes, in that in his Federal income-tax accounting he may deduct the whole discount as a "cost of doing business" (i.e., "commission paid"), whereas if he sold the mortgages not at par but at a discount, the discount could only be regarded as a "capital loss," useful perhaps in offsetting "capital gains" made in other transactions. Inasmuch as few Federal savings and loan associations have to pay federal income taxes, the "commission" received is tax free.

Theoretically it would be possible also for the seller of bonds at discount to bill the buyer at par and remit his check for

the discount and call it "commission" for purchase. This is probably never done, and for good reason.

The matter was referred to one of the biggest accounting firms in the United States, one that has had broad experience in savings-and-loan-association accounting. The spokesman for this firm stated: ". . . the discount should be taken into income as earned during the life of each mortgage. Taking the discount into income immediately and recording the mortgage loans purchased at par would not only distort income for the whole term of the investment, it would also violate a basic and generally accepted accounting principle that assets should be stated at cost when they are acquired.

"In the case you mention there is no question of unrealized appreciation. There is no appreciation at all, and it is difficult to see how bookkeeping entries can convert 95 cents in to a dollar.

"Should the discount be received as a separate payment called a "commission," we do not think the answer should be any different. Accounting should deal with reality and such a device would appear to be mere subterfuge."

THE EMERGENCE OF PUBLIC ACCOUNTING IN THE UNITED STATES, 1748-1895

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MOST OF THE HISTORIES of accounting have begun with Assyria and Babylonia, leaped over the many countries to Italy in the days of Pacioli, then hurried across Europe to devote their remaining space to the origin and growth of public accountancy in Great Britain. By the time these authors had covered the period from the South Sea Bubble to the organization of the British societies during the third quarter of the nineteenth century, they had exhausted their space and gave but little thought to the United States.

The story of the accountants who blazed the trails for the accounting profession in our country can only be inferred from brief, infrequent references and this paper may be considered as covering the "ancient" history of the American profession. The date 1895 was chosen to end this period since prior to this time success had not been achieved in getting legal recognition for the profession. Even so, several accounting firms had been formed, but there is no record of any attempt to have the practice of public accountancy recognized on a national level as a profession by the men engaged in public practice.

EARLY AMERICAN ACCOUNTANTS AND THE FUNCTIONS THEY PERFORMED

British Accountants Sent to the United States

Richard Brown of Edinburgh, in his *History of Accounting and Accountants*, published in 1905, leads one to believe that British accountants had visited the United States before the American Revolution.

> A great commercial crisis visited Glasgow in 1777 as the result of the revolt in the previous year of the North American Colonies, with which part of the world the trade of the city was closely identified.
>
> Mr. Walter Ewing Macloe of Cathkin who was designated in the earliest issue of the Glasgow directory as "Merchant and Accountant" was, we are told, from the esteem and confidence in which he was held, employed to wind up some of the largest and most important of the bankruptcies which occurred in that unfortunate year.[1]

It is known that James Ewing, son of Walter Ewing Macloe, acquired possessions in the West Indies, and one wonders if some of the Britishers who may have come for specific accountancy engagements did not remain here and establish themselves to serve American merchant business of Philadelphia, Boston, New York, and Charleston. If so, it may be inferred that a few Americans availed themselves of the abilities and experience of these visitors. No dates have developed as facts of the earliest visits by Scottish accountants to the colonies on behalf of British traders and of the later permanent migration of British accountants to this country.

If there were public accounting engagements in the American colonies during the eighteenth century, they were doubtless performed in one or more of the commercial towns on the Atlantic seaboard during one of the commercial crises, and they were probably connected with some of the principal businessmen of that time.

Functions of Early American Public Accountants

Some early references to men performing the functions of public accountants in the

[1] Richard Brown, *A History of Accounting and Accountants* (London: T. C. and E. C. Jack, 1905), p. 199.

United States have been found, the earliest of these references being dated 1748. In that year, Benjamin Franklin sold his interest in the firm of Franklin and Hall, a printing company, to David Hall for £18,000. The money was to be paid to Franklin in eighteen annual installments amounting to £1,000 each, subject to a final accounting for the contributions and withdrawals of the partners. This period expired in 1766 when Franklin was in London as colonial representative. James Parker had been Franklin's partner in New York for several years, so Franklin asked him to act as his representative in the final settlement with Hall. He made an inventory and valuation of the equipment and materials and presented a report which he entitled "State of your Accounts with Mr. Hall."

There is no proof that James Parker was in practice as a public accountant. Nevertheless, this may have been the first public accounting engagement in the American Colonies. Parker's report has been deposited in the Library of Columbia University.[2]

On January 11, 1786, *The New York Directory*, the first such volume issued for the City of New York, was published. The publisher, Shepard Kollock, advertised the directory as showing national, state and municipal officers, ministers, bank officers, Columbia College professors, physicians, lawyers, tradesmen, etc. One of the announcements in the directory read as follows:

> David Franks Conveyance and Accountant No. 66 Broadway begs leave to return his sincere thanks to his friends and the public and hopes the cheapness of the following will continue him their favors.[3]

Then follows the advertiser's charges for drawing a release, a bond, and a power of attorney, but fees for services as an accountant were not stated.

A similar reference of a public accountant is found in an advertisement which appeared in the *New Jersey Journal* of Wednesday, July, 8, 1795, printed and published by the same Shepard Kollock at Elizabethtown, New Jersey. The advertisement reads:

> Notice
>
> A conveyance office and office of intelligence will be opened by the subscriber on Monday next, in the brick house of William Shute, Esq., formerly occupied by Cortland Van Ansdaler; where writings of every kind will be done on moderate terms; also, farmers and tradesmen's books posted with accuracy and dispatch, and those who do not understand the method of keeping their books will be shown the form.
>
> Benjamin Thowson
>
> Elizabethtown, April 21, 1795.[4]

The public practice of accountancy seems to have been combined most commonly with teaching and writing on the subject of bookkeeping. The advertisements also indicate that some individuals were performing the duties of accountants and lawyers at the same time.

The following display advertisement indicated the functions performed by the public accountants in the United States during the last half of the nineteenth century.

> 1851
>
> Practical bookkeeping and accountant. Opposite the Court House. Books opened, closed, posted. Bills and accounts made out. Bookkeeping in all its varied branches taught individually or in classes.[5]

According to this advertisement the accountant did some systems work but was primarily a bookkeeper and probably re-

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[2] Norman E. Webster, "Public Accountancy in the United States," in ***Fiftieth Anniversary Celebration*** (New York: The American Institute of Accountants, 1937), p. 104.

[3] *Ibid.*, p. 105.

[4] "Early Days of Accountancy," ***The Journal of Accountancy***, October, 1913, p. 311.

[5] A. C. Littleton, ***Directory of Early American Public Accountants*** (Urbana, Illinois: The University of Illinois, 1952), p. 19.

sorted to teaching to supplement his income.

The New York City directories give the name of James A. Bennet for the following years:

1818–1820, Accountant, 48 Fulton Street
1821–1822, Accountant, 12th Avenue
1824–1829, Teacher in Bookkeeping, 97 John Street
1830–1831, Teacher in Bookkeeping, 39 Arcade
1833–1835, Teacher in Bookkeeping, 73 John Street[6]

Among those who were included in the directories was Benjamin F. Foster, of Boston, who was listed as a teacher in 1834 and as an accountant in 1835–1837.

Probably the first person to call himself a public accountant in Pennsylvania was John W. Francis, who opened an office in Philadelphia in 1869. Some years later Mr. Charles Nixon Vallum opened his office as an accountant in 1875 also in Philadelphia. He sent out as a bid for business an attractive card, handwritten and multiplied photographically, explaining briefly just what he was prepared to do for the public.[7]

1875

Prepared to make statements for executors, examine corporations, partnerships, individual books and accounts of every description, open and close books, to attend to any and every kind of bookkeeping. Books posted monthly and trial balance taken at a trifling cost. Plans furnished for books for special purposes.[8]

John Heins, who was later to play a primary role in the organization of the American Association of Public Accountants, began to practice as a public accountant in downtown Philadelphia in 1877.

Another one of these advertisements which indicates the widening scope of the accountant's functions appeared thirty-six years after the 1851 display:

1887

H..... F....., public accountant and auditor, examines and reports on individuals, partnership, corporation accounts, investigates and adjusts disputed accounts, acts as assignee or receiver, designs new books to meet special requirements. Books posted and balance sheets rendered, accounts audited, expert work for the courts, scientifically and faithfully performed.[9]

The advertiser seemed to perform a very wide variety of functions compared to that of thirty years before. The emphasis in 1887 was on auditing business records and issuing reports, whereas in 1851 the accountant or bookkeeper was concerned with the more routine matters of posting and closing accounts. In the advertisement the individual was available to render clerical help in that he was willing to make statements for his clients. The accountant in the latter case was available for work of a professional nature.

During the early 1890's the railroad companies in the United States were having financial difficulties. When one of these, the Norfolk and Western Railway, had a receiver appointed by a federal court, Price, Waterhouse and Company through its agent and predecessor, Jones & Caesar, were engaged to make a detailed examination of the company's accounts. This was the first of several railroad engagements undertaken by this firm.

Several other audits prior to amalgamation were brought to the firm of Jones & Caesar during the last decade of the nineteenth century.[10] These mergers continued even though the Sherman Anti-Trust Act had been passed in 1890.

During this period engagements such as those by Jones & Caesar, later Price,

[6] H. C. Bentley, *A Brief Treatise on the History and Development of Accounting* (Boston: Bentley School of Accounting and Finance, 1929), p. 27.

[7] George Wilkinson, "Organization of the Profession in Pennsylvania," *The Journal of Accountancy*, September, 1927, p. 162.

[8] A. C. Littleton, *Directory of Early American Public Accountants*, p. 19.

[9] *Ibid.*, p. 20.

[10] C. W. DeMond, *Price, Waterhouse and Company in America* (New York: The Comet Press, Inc., 1951), p. 5.

Waterhouse Company, helped establish the profession. It was not yet a frequent occurrence for accountants to be called in regularly for auditing engagements. In the engagements incident to mergers, the accountants would audit the books of all the enterprises to be consolidated. Along with the audit the accountants would assist in determining the basis for recording the assets and equities of the companies.

Formation of Accounting Firms

A natural development from practicing as individuals was for two or more accountants to associate themselves in a partnership. Accountants probably formed partnerships in imitation of other professions such as medicine and law, or following the precedent set by British accountants.

A firm called Veysey and Veysey was established in New York in 1866. The senior partner, William H. Veysey, an Englishman who never forswore allegiance to Queen Victoria, established himself in New York in that year. His oldest son, Walter H. P. Veysey, was associated with him.[11]

This firm had several assistants, employed by them prior to 1880, who were to become leaders in the development of the profession. Two of these men were James N. Kell, who later served as treasurer of the New York State Society of Certified Public Accountants, and George Wilkinson, who later became very active in the organization of the national organizations.

In Cincinnati, a firm was listed under the caption of "Accountants Bureau" in the 1876 directory. The firm was composed of Nelson, Shepard and Cooke, who were described as expert accountants.[12]

One of the oldest if not the oldest national firm, Barrow, Wade, Guthrie and Company, was established in October, 1883, in New York. From the earliest days of this firm engagements were taken in different sections of the United States. As far as can be determined the accounting firms prior to this date were local to their operations. Mr. Guthrie had come to this country on business while acting in the capacity of receiver of a bankrupt financial concern in England. Guthrie was also a representative of the firm of Thomas, Wade, Guthrie and Company, Chartered Accountants, of London and Manchester. While visiting in the United States, it was evident to this trained accountant that there was an opportunity to establish a firm in this country. He joined with Mr. John Wylie Barrow, of New York, an actuary, who checked the branch statements of insurance companies in this country before forwarding them to England, as the American partner.

Prior to Mr. Barrow's death in 1886, the firm took in another partner, Mr. Oscar E. Morton. But when Mr. Guthrie returned to this country with Mr. James T. Anyon, whom he had employed to work in the New York office, he was faced with a lawsuit brought by the resident partner. After the suit was settled, Mr. Anyon assumed the duties of the firm in this country and became an outstanding individual in the development of public accountancy.[13]

All the names of the partners in the James Yalden and Company are not known, but James Yalden was listed in the 1883 telephone directory, and in 1891 he was listed under Yalden, Brooks and Donnelly; and in 1895 under Yalden, Brooks, and Walker. Security offerings in the New York *Times* showed that ac-

[11] George Wilkinson, "Organization of the Profession in Pennsylvania," *The Journal of Accountancy*, September, 1927, p. 162.

[12] Norman E. Webster, "Public Accountancy in the United States," in *Fiftieth Anniversary Celebration*, p. 107.

[13] James T. Anyon, "Early Days of American Accountancy," *The Journal of Accountancy*, January, 1925, 2.

counts were certified in 1890 by Deloitte, Dever, Griffiths and Company and by Price, Waterhouse and Company.

Samuel Lowell Price, of Price Waterhouse and Company, was a moving spirit in the formation of the Institute of Accountants in London in 1870. He was active in this organization until it was absorbed by the Institute of Chartered Accountants in England and Wales, incorporated by Royal Charter in 1880. All three partners, Price Waterhouse and Holyland were fellows of the Institute of Accountants.

Work in the United States was undertaken by the firm as early as 1873, and thereafter visits to this country were made with increasing frequency.[14] During the next decade there was considerable activity in the conversion of privately owned businesses into public companies and a report on earnings, signed by some well known accountant, became an indispensable part of the prospectus advertising the offer to the public. During this period London financiers were seeking opportunities for investment of funds abroad, and as a result the undertakings by the firm, particularly in America, were increasing. With the amalgamation of a group of American breweries into the Bartholomay Brewing Company of Rochester, New York, audits were made of the accounts of the constituent companies. Sheath and Fowler, and members of the staff of Price, Waterhouse and Company were sent to the United States to carry out the work involved in the merger proceedings.

The period during which these representatives of English public accounting firms came to audit the accounts of American breweries was the beginning of a new era in American enterprise, an era which witnessed a wide expansion of business. But the great value of the work referred to English accountants resulted in the opportunity for training Americans taken on their staff, many of whom had practically no experience before this time in public accounting. This work gave them experience in a fairly wide field of accounting activity.[15]

The importation of the above mentioned professional skills and subsequent training of American apprentices resulted in the emergence of American counterparts to the existing English present firms. One of the first of these firms was Price, Waterhouse and Company which originally operated under the name Jones, Caesar and Company. The first American office of Price Waterhouse and Company was opened under the latter name in New York in September, 1890. The Chicago office was opened in February, 1892.

In 1893 the first of the midwestern firms was opened by Arthur Young in Chicago. The firm was known as Stuart and Young.

Then came the founding of Haskins and Sells on March 4, 1895, in New York. The two founding partners, Charles Waldo Haskins and Elijah Watt Sells, had met while serving on a committee investigating the operations of the Executive Department at Washington after the panic of 1893.[16]

A note in *The Accountant*, in 1899, states that two of the best known firms of English chartered accountants opened branch offices in Chicago in the year 1891 and transferred to them their Western business.[17] Unfortunately the names of these firms were not given in the announcement, but Mr. Jones and Mr. Caesar were operating in the United States as agents of

[14] C. W. DeMond, *Price, Waterhouse and Company in America*, p. 5.

[15] *Ibid.*, p. 10.

[16] Charles W. Haskins and E. W. Sells, *The First Fifty Years, 1895–1945* (New York: Privately Printed, 1947), p. 5.

[17] "The Public Accountant in Chicago," *The Accountant*, April, 1899, 395.

Price Waterhouse and Company of England and had several accounts in the Chicago area, including the stockyards. Mr. Jones first came to this country in 1891 and established an office in Chicago; therefore this might have been one of the offices mentioned as branch office of English Chartered Accountants.

PROFESSIONAL ORGANIZATIONS

Institute of Accountants and Bookkeepers

Just as it was natural to form partnerships it was also a natural move for an occupational group to form an organization, even though the groups were formed for social as well as professional benefits.

The first accounting organization in the United States was the Institute of Acountants and Bookkeepers of the City of New York, incorporated July 28, 1882. The name or the organization was shortened to the Institute of Accountants on June 23, 1886. Its objects and purposes, as stated in its certificate of incorporation, were:

> the evaluation of the profession and the intellectual advancement and improvement of its members:
>
> 1st, By the discussion in its councils of technical knowledge and commercial practice;
>
> 2nd, By aiding its members in the performance of their professional and social responsibilities.[18]

Although the Institute of Accountants and Bookkkeepers was active during twenty-five years or more, very few records of its activities remain except its charter, its by-laws, a few notices, and some news items in the accounting journals of that period. These records show that its membership included a considerable number of accountants in public practice and that for its highest class of membership, applicants were required to pass examinations which were described as severe. Its aims, at least during the first decade of its life, appear to have been almost wholly devoted to education for accountancy and the provision of accounting literature. So far as is known, this was the earliest effort to provide educational opportunities for the profession in America.[19]

American Association of Public Accountants

After the organization of accounting firms and the establishment of collegiate schools of business, it became clear to a few men of vision that the profession then known as "expert accounting" was a profession essential to the proper conduct of business. Those men who claimed to be experts in "matters of accounts" were few in number, had no means of increasing their number or maintaining high standards of practice for their own benefit and the benefit of the public, and had no legal status or means of controlling the profession. It was not until 1886 that the first steps were taken to organize accountancy on a professional basis.

As has been noted, Mr. James T. Anyon arrived in New York City from London in October, 1886, to enter the firm of Barrow, Wade, Guthrie and Company. After the death of Mr. Barrow, Mr. Anyon turned his attention to an inquiry into the standing of the profession of accounting in New York. Mr. Anyon made the following statement:

> I had left on the other side a profession full of vitality, one that was looked upon as an essential element of business life, and so recognized in every section of business activity. It need therefore not be a matter for surprise when I say that it was natural I should expect in this great and progressive country to find relatively the same conditions in the respect named as existed in the country I had left. A general survey of the situation, however, soon made the fact apparent that these conditions existed here only to a very limited extent, that public accounting was in its infancy and that

[18] Norman E. Webster, "Early Movements for Accountancy Education," *The Journal of Accountancy*, May, 1941, 443.

[19] *Ibid.*, p. 443.

it was little known or understood as a distinct profession.[20]

It was in early December, 1886, that Mr. Edwin Guthrie, F.C.A. of Manchester, who was visiting the city of New York on the business of his firm, accepted Mr. John Heins's invitation to visit Philadelphia. Heins was one of the most prominent accountants in Philadelphia. The object of the meeting was to discuss a plan to organize public accountants into a society with the following objectives:

> to elevate the standing and advance the interest of public accountants; and to direct attention to the advantages offered by, and the safeguard attending, the auditing and adjusting of books and accounts by persons thoroughly skilled and experienced as public accountants, and to establish personal reputation.[21]

The society was to be called the "Chartered Accountants' Institute," but Mr. Guthrie strongly counseled Mr. Heins and Mr. Francis to use some other name than "Chartered Accountants." He pointed out that it would conflict with the use of that title in this country by English and Scottish accountants visiting the United States on professional business. This seemed to be a serious objection, because the most important and responsible business entrusted to public accountants in these days was given to visiting British accountants because of the large amounts of foreign, primarily English, investments in this country. Also, Mr. Guthrie felt that a national organization, such as the Institute of Chartered Accountants (1882); would serve these purposes better than a state society.

Mr. Anyon immediately invited all of those present at the first meeting as well as all interested accountants to meet with him and Mr. Edwin Guthrie at the firm's office, 45 William Street, to discuss "the matter of making the profession better known, understood, and recognized by the public, and what might be done to attain this object."[22]

On December 22, 1886, six or seven persons attended such a meeting. Mr. Guthrie was asked to take the chair, and Mr. Anyon was asked to act as secretary of the meeting. Both gentlemen complied, and Mr. Guthrie addressed those present. Among other things he said,

> that it was a great privilege to him thus to have this opportunity of meeting the accountants practicing in this and other cities; that he was sorry, however, to find the profession had not materially progressed in public recognition, or in other ways, since he was last here; that in England, on the contrary, the profession was on a very high plane; that it was recognized as one of the leading professions—firms, corporations, banks, railroads, and other financial and commercial entities seeking the service of accountants in all phases of activity; that the efforts of practicing accountants in this country should be directed toward bringing about a similar institution or body to that now existing on the other side, viz., the Institute of Chartered Accountants in England and Wales, under the regulations of which competent accountants could practice and be recognized by the public as fully qualified so to do.[23]

A resolution was proposed by Mr. John Heins, who had come from Philadelphia to attend this meeting, to the effect that the accountants present should form themselves into an association for the advancement and protection of the interests of the profession, and that the qualifications for membership should be ability and fitness to practice in a public capacity. It was further proposed (Mr. Anyon states that he had the pleasure of making this motion) that the name of this organization be the American Association of Public Accountants. The motion was carried unanimously

[20] James T. Anyon, *Recollections of the Early Days of Accounting, 1883–1893* (New York: Published by the Author, 1925), p. 16.

[21] George Wilkinson, "Organization of the Profession in Pennsylvania," *The Journal of Accountancy*, September, 1927, 163.

[22] James T. Anyon, "Early Days of American Accountancy," *The Journal of Accountancy*, January, 1925, 7.

[23] *Ibid.*, p. 7.

and thus came into existence on December 23, 1886, the first organized body of professional accountants in the United States.[24] This organization consisted of some eight or ten individuals whose interest continued unabated. All worked to get public accounting better known and the association in a position to become recognized as having a legal status. Their efforts were finally successful when, on August 20, 1887, the Association became incorporated under the laws of the state of New York with the name and title of "American Association of Public Accountants."[25] A copy of the Association's certificate of incorporation was published in the American Institute of Accountants *Fiftieth Anniversary Celebration.*

All of the American citizens present signed the certificate of incorporation. Mr. Anyon and Mr. Veysey, being British subjects, could not join the petition. Of the eight original signers of the certificate of incorporation, only two remained members about a dozen years later—Mr. John Heins and Mr. James Yalden.[26]

The bylaws of the association were prepared and adopted on February 8,1888, at a general meeting of the members of the Association. A council meeting immediately followed, at which time the following officers were elected:

President
James Yalden, New York
Vice-President
John Heins, Philadelphia
Treasurer
William H. Veysey, New York[27]

The first Council of the association, the members of which were selected to regulate the conduct of its affairs, consisted of the following men:

James T. Anyon	New York
Louis M. Bertheil	New York
George H. Church	New York
John Heins	Philadelphia
Mark C. Mirick	New York
Rodney McLaughlin	Boston, Mass.
C. H. W. Sibley	New York
William H. Veysey	New York
Walter H. P. Veysey	New York
James Yalden	New York[28]

The bylaws of the association provided that the members should be divided into two classes, "Fellows" and "Associates," the Fellows to have the right to use after their name the initials "F.A.A." and the Associates the letters "A.A.A." to designate their membership status. It was provided that

> Fellows shall be (1) the original incorporators of the association and those who subscribe to the constitution and by-laws; and (2) all persons who have practiced as public accountants continuously for three years previous to their admission to membership in the Association.
>
> Associates shall be all persons who obtain a certificate of their having passed the final examination hereinafter provided for.[29]

At the time of incorporation the association had thirty-one members, of whom twenty-four were fellows and seven associates.[30]

ACCOUNTING LITERATURE AND EDUCATION FOR ACCOUNTANCY

Early Bookkeeping and Accounting Books

James Bennett, one of the earliest American writers on bookkeeping, published his first book, *The American System of Practical Bookkeeping*, in 1814. This

[24] *Ibid.*, p. 8.
[25] T. Edward Ross, "Random Recollections of an Eventful Half Century," *The Journal of Accountancy*, October, 1937, 268.
[26] Sanders W. Davies, "Genesis, Growth and Aims of the Institute," *The Journal of Accountancy*, August, 1926, 105.
[27] Robert H. Montgomery, *Fifty Years of Accountancy* (New York: Ronald Press Company, 1939), p. 63.
[28] James T. Anyon, "Early Days of American Accountancy," *The Journal of Accountancy*, February, 1925, 84.
[29] James T. Anyon, *Recollections of the Early Days of American Accountancy*, 1883–1893, p. 33.
[30] James T. Anyon, "Early Days of American Accountancy," *The Journal of Accountancy*, February, 1925, 85.

book met with popular response and was highly recommended by merchants, bank presidents, and others.

In 1818, Bennett published a revised edition for use in schools. The title page of this edition shows him as:

> James Bennett, A. & M., Professor to the Accountants' Society of New York, late a professor to the Accountants' Society of Pennsylvania, Late President of the Accountants' Society of New York, and member of Medico-Chirurgical Society of the State of New York.[31]

He probably states this to promote his book. No other references to the organizations in which he claimed membership could be found.

The following quotations are from his book:

> Natural and mathematical instruments are supplied and students will have access to a choice library. An excellent, mounted telescope for observing Satellites of Jupiter and for other astronomical purposes.[32]
>
> The annual commencement of Bennetts' Public Lectures on Bookkeeping is on the first Monday in October, and a new class commences on the first Monday of each of the succeeding months, including April; as the lectures close annually on the 1st of May.[33]
>
> Terms for an unlimited attendance, with the practice, $15 to be paid in advance. For private instruction, which is given at all times, $25 including books for practice. The private instruction is given in the daytime throughout the year.[34]

Mr. Bennett makes the following statement as to his ability and accomplishments:

> The author has instructed in the Science and Art of Bookkeeping a far greater number of grown persons than any other person in any other country or age of the world; he has instructed persons from thirteen different nations of the earth.[35]

Another teacher-author-accountant was Benjamin F. Foster, of Boston, who was listed in 1834 as an instructor. From 1835 to 1837, he was listed as an accountant. He was also a writer.

In 1837 Christopher C. Marsh, of New York City, published a *Lecture on the Study of Bookkeeping with the Balance Sheet*, the title page of which contained the following statement:

> To Merchants and Others
> Complicated Accounts Adjusted:
> Opinions given on disputed points relating to accounts;
> Books opened and commenced.[36]

George N. Comer, of Boston, published *A Work on Bookkeeping* in 1842. His card as Accountant stated:

> Offers his services for the adjustment of disputed and complicated accounts, Insolvent and Other Estates . . . and all business pertaining to that of an accountant, executed with fidelity and dispatch.[37]

It is clear, therefore, that these early American authors and teachers sought engagements as public accountants. It is probable that persons from other activities, especially from banking and insurance, were from time to time called in for public accounting service. After 1840, one begins to find mention of men whose principal occupation was that of public practice of accountancy.

In 1852, Christopher C. Marsh published *Bookkeeping in Spanish* in California. A. G. Beck was secured as a professional translator because of his friendship for Marsh and his familiarity with the subject matter of Marsh's book. According to a letter dated May 20, 1888, from Beck's son, Francis E. Beck, who was one of the earliest members of the American Association of Public Accountants, A. G. Beck was in public practice as an accountant in Los Angeles from 1852 to 1878.[38]

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[31] H. C. Bentley, *A Brief Treatise on the History and Development of Accounting*, p. 27.
[32] *Ibid.*, p. 27.
[33] *Ibid.*, p. 27.
[34] *Ibid.*, p. 28.
[35] *Ibid.*, p. 28.
[36] Norman E. Webster, "Public Accounting in the United States," in *Fiftieth Anniversary Celebration*, p. 106.
[37] *Ibid.*, p. 106.
[38] *Ibid.*, p. 107.

Nineteenth Century Bookkeeping and Accounting Education

Mr. Bennett, mentioned previously as one of the early authors, also had a school which offered instruction in bookkeeping and related subjects. The following statement was made concerning his school:

> The school established by Bennett for the teaching of bookkeeping and mathematical science, in New York City in 1818, is doubtless the first accounting school in the United States.[39]

Attempts were made as early as 1851 to found a school of commerce at the university level. This attempt was made at the University of Louisiana but was apparently abandoned in 1857. In 1868, the University of Illinois established a school, the name of which became the School of Commerce two years later. The purpose of this school was to prepare men for the tasks of business. Bookkeeping was one of the subjects taught. In 1880 the Board of Trustees discontinued the school since

> the attempt to construct a University School of Commerce along the lines of a business college have proven unsuccessful. The school had done little more than to prepare clerks and bookkeepers. It had not been realized that the function of a university school of commerce was to prepare for future leadership in economic enterprise, not for clerkship.[40]

The first business college of record offering instruction in accounts and related subjects was the Bryant and Stratton School, established in 1853.[41] Schools of a similar nature began to be established in the major cities on the East coast.[42]

The United States was the first country to recognize accounting as a proper subject or discipline to be given a place in the university curriculum. The earliest known definite plan for the establishment of a collegiate school of business in the United States is described in a report made by President Robert E. Lee in 1869 to the trustees of the institution that later became Washington and Lee University. President Lee died the next year and his proposal was not carried out.[43]

The honor of establishing the first American collegiate school of business belongs to the University of Pennsylvania. Mr. Joseph Wharton gave $100,000 in 1881 to establish the Wharton School of Finance and Economy in Philadelphia.[44] The name was later changed to the Wharton School of Commerce and Finance.

American Association's Educational Effort

On February 10, 1892, while James Yalden was president of the Association and Henry R. M. Cook was vice-president, a special meeting was called to consider a charter for an educational institution; the meeting was held at the office of the president. The vice-president, who it appears was also chairman of a committee on the charter, was authorized to go to Albany "to find out the particulars." At Albany the committee was advised by Melvil Dewey, Secretary of the Board of Regents, to present to the regents a petition for a charter for the proposed institution, embodying an outline of its form of organization, a statement of the provisions to be made for its financial stability, the curriculum which it would offer to its students, and probably the names of the persons who would constitute its faculty.

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[39] H. C. Bentley, *A Brief Treatise on the History and Development of Accounting*, p. 28.

[40] Jeremiah Lockwood, "Early University Education in Accounting," THE ACCOUNTING REVIEW, June, 1938, 132.

[41] Norman E. Webster, "Early Movements for Accountancy Education," *The Journal of Accountancy*, May, 1941, 441.

[42] James B. Lovette, *History of Accounting in the United States* (unpublished typescript, American Institute of Accountants Library, New York), p. 14.

[43] H. C. Bentley, *A Brief Treatise on the History and Development of Accounting*, p. 28.

[44] Emanuel Saxe, "The Role of the Society in Accounting Education," in *The New York State Society of Certified Public Accountants, Fiftieth Anniversary* (New York: New York State Society of Certified Public Accountants, 1947), p. 21.

On February 20, 1892, Harry A. Briggs, Richard F. Stevens, and the Committee on Charter were constituted as a Committee on Curriculum which reported on March 5, 1892, that it had agreed upon the course of study. On that date a fund of $5,000 was provided; on April 6, 1892, John L. N. Hunt was asked to take the chair of commercial law.[45]

A copy of this petition or of the curriculum is not known to exist. However, subsequent records indicate that the petition asked for a charter for a college of accounts, with the power to confer degrees, to have a guaranty of $5,000 against deficits, to offer the courses provided for in the curriculum, and to be under the direction of the American Association of Public Accountants. The petition was endorsed by several hundred bankers, corporations, firms, and individuals of note and sent to the regents prior to May 21, 1892, because on that date the Committee informed the members that action would be taken on the petition in Albany on June 8, 1892.[46]

The minutes of the regents' meeting contain this statement:

> . . . and after discussion, on motion of Regent Doane, it was voted that the Secretary be instructed to inform the petitioners in the matter of the American Association of Public Accountants of New York that the regents are not prepared to endorse the whole proposal in their petition, but are ready to open examinations for such persons as desire to become public accountants.[47]

The members of the Association's Charter Committee went to work immediately on a revision of the petition. The task was completed and the revised petition was presented to the members of the Association on December 8, 1892, when Mr. Cook submitted copies of the petition and the proposed curriculum. The proposed curriculum can be found in an article by Mr. Norman E. Webster in the May, 1941, *Journal of Accountancy.*

Even with the energetic sponsorship of the Association, the school was not a success. Though the school itself was a failure, the movement promoted by it was a success. Soon after the temporary charter expired on December 14, 1894, the regents' willingness to open examinations as early as 1892 paved the way for two bills which finally blossomed into the first state laws which set up the professional designation of Certified Public Accountant.

FIRST LEGAL RECOGNITION PROPOSED FOR THE PROFESSION

In 1895 the accountants in California and New York were seeking legislation to obtain legal recognition and the licensing of public accountants. Early in 1895 in New York, both of the then existing accounting societies, the American Association of Public Accountants and the Institute of Accountants and Bookkeepers, had bills introduced in the legislature. The Association appointed a committee to promote the passage of suitable legislation, which was prepared by Francis Gottsberger, and introduced on February 20. The Institute's bill was prepared by Henry Harvey early in March.[48]

The Institute's bill provided for the examination of candidates for certificates as Certified Public Accountants.

Section I of the bill stated:

> Any citizen of the United States and a resident or doing business in the State of New York, over the age of twenty-one years, and of good moral character who shall have received from the Uni-

[45] Norman E. Webster, "Early Movements for Accountancy Education," *The Journal of Accountancy,* May, 1941, 443.

[46] "A College of Accountants—Petition for It Sent to the University Regents," *The Accountant,* June, 1892, 520.

[47] Norman E. Webster, "Early Movements for Accountancy Education," *The Journal of Accountancy,* May, 1941, 444.

[48] Norman E. Webster, "Background of the New York State C.P.A. Law of April 17, 1896, and Its Subsequent Amendments," in *The New York State Society of Certified Public Accountants, Fiftieth Anniversary,* p. 32.

versity a certificate of his qualifications, to practice as a public expert accountant, shall be styled and it shall be a misdemeanor for any person not holding such certificate to assume the title of certified public accountant, or to use in connection with his name the letters C.P.A.[49]

Both the bills of the Association and the Institute contained restrictive provisions which, however, differed materially in their application. The Association's bill provided

that no person shall practice as a public accountant after the passage of this act unless he be licensed by the Regents of the University of the State of New York.

The Institute's bill provided

that after July 1, 1896, only certified public accountants should be appointed or employed to act as examiners of accounts, expert accountants or paid auditors by courts, administrators, receivers, state, county or municipal officers.

Before the end of the legislative session, the Association's bill with its restrictions of practice to those licensed by the Regents was withdrawn. The Institute's bill was defeated in the Senate because of the provision limiting practice to Certified Public Accountants.[50]

SUMMARY

It seems evident that more than seventy-five years ago some men in large cities called themselves public accountants. They audited or "checked up" books with the object mainly of discovering or preventing irregularities rather than for constructive work, although systems work was undertaken. Somewhat later the foreign shareholders and bondholders of a number of large enterprises, mainly but not exclusively railroads, desired that the accounts should be audited and sent out auditors from England to perform such services.[51] This practice led to the opening of offices in the United States by English and Scotch auditors; some of the early firms were established in this way. American accountants gave increasing competition.

The earliest accounting organization, The American Association, was formed with the purpose of raising the professional standards and "for social and benefit purposes." Early attempts to elevate the profession by means of collegiate instruction in accounting for those wishing to enter the profession were unsuccessful. Wharton's School of Finance and Economy, however, was formed in Philadelphia, and accounting was included in its curriculum.

The desire on the part of the members of the profession to receive recognition was carried to the New York State Board of Regents. With the Board's willingness to administer examinations an attempt was made to secure legal recognition from the state. The first attempt in 1895 to get legislation for the legal recognition of Certified Public Accountants failed, but during the period to follow the public accountants continued their efforts with considerable success.

[49] "History of the American Institute," in *Fiftieth Anniversary Celebration*, p. 7.

[50] Norman E. Webster, "Background of the New York State C.P.A. Law of April 17, 1896, and Its Subsequent Amendments," in *The New York State Society of Certified Public Accountants, Fiftieth Anniversary*, p. 32.

[51] Edward L. Suffern, "Twenty-five Years of Accountancy," *The Journal of Accountancy*, September, 1922, 174.

ACCOUNTANCY: CIRCA 2000 A. D.*

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You may have observed from my reading of the title of this paper that it differs from the one printed in your program, which is, "Auditing Procedures: Vintage Year 2000." Webster defines vintage as "the produce of the wine for one season; as the vintage of France; wine of the vintage of 1890." Webster also says that vintage may be used humorously to mean "any similar distinctive product in a season as a drama of prewar vintage." From this definition it strikes me as though your Program Committee is somewhat ignorant of the difference between forward and backward, past and future, or probably was so loaded with the vintage of 1890 or "some other similar distinctive product" that the topic just sounded good at the time.

I have, nevertheless taken, the liberty to assume that what the Program Committee really proposed was a word picture of what may be expected to happen in the area of auditing and public accounting during the next fifty years. Now this is a topic in which a person can stir up a real interest—first because it excites the imagination; and second, who is there to successfully contradict a prophecy. But the prophets have not fared too well in literary writings. Witness Cicero who said "I shall always consider the best guesser, the best prophet"; or Ben Franklin who averred "the wisest may happen to miss while he that knows nothing of it may, by chance, be a prophet." But it took Cowper to really put us forecasters in our place with this choice morsel: "a shallow brain behind a studious mask, an oracle within an empty cask."

There are people who do not consider the type of project which I bring to you to be research. The Travel Committee of my own university which doles out some paltry sums to those who give research papers to learned bodies considered this project as not being research, even though I quoted Bill Paton's famous statement that "research may consist simply in sitting in the corner, and thinking." As a matter of fact, the research that went into this paper called for a type much more astute than corner sitting. All old favorites have been called on, such as stargazing and tea-leaf manipulation. Various types sizes and colors of crystal balls were used, and even Mammy Yoakum's special recipe for foretelling the future was secured. (I shudder to think of it!) I even tried Ben Jonson's advice "eat exceedingly and prophesy." However, this one ended in failure—I simply went to sleep and dreamed of being stranded in space on a rocket ship. But for what it may be worth, here is what came out of all this "research."

THE SETTING

Unlike some writers on the future of accounting, we shall not take the trip to the twenty-first century by the slow, plodding, step by step, year by year development, but shall simply step into Dr. Wonmug's time machine and take a look at accounting as it is functioning in that era. Are you ready for the journey? Then hold your hat, close your eyes, steady your nerves—and zippo—we're off!

As you open your eyes and get reorientated you are pleasantly surprised to find

* Presented at the annual meeting of the American Accounting Association, Chapel Hill, September 2, 1953.

the atmosphere bracing—the result no doubt of controlled weather both in and out of doors. The people as a whole seem to be somewhat taller than in 1950, somewhat slower in their movements, but definitely friendlier and healthier. You are struck with the large number of people who appear older than you are accustomed to seeing, but better preserved and on the whole happier. There is no congestion of traffic, in fact there are no vehicles on the ground level. You are told all urban transportation, as well as vehicle parking in cities, is either above or below the ground. Wishing to learn something of the economic, physical, and political conditions, you ask for directions to the nearest bureau of public information and there secure the most recent world almanac from which you ascertain the following facts:

With Hawaii and Alaska admitted in 1957, the population of the 50 United States now totals 250 million people. Internationally, the world is, temporarily at least, at peace as the result perhaps of the formation of the United States of Europe, United States of South America, and the United States of Eurasia; and the improvement of trade both within and among these groups of nations. It is only in the Orient and in Africa that trouble is brewing but with prospects bright for the eventual development of a United States of the Far East and a United States of Africa.

Following the harnessing of all the big rivers back in 1965 and their diversion to arid areas, and with other water resources control, the population center of the nation had shifted even further west. After 1975, population of the largest cities started downward with a spreading of population into rural areas and the unprecedented growth of many small villages into cities of 50,000 to 100,000 people. Much of this shift was occasioned by the steady decentralization of industry, the impetus to new business units through tax advantages at the expense of giant corporations, and the 1958 atomic bombing scare.

The nation's plant capacity had become infinitely more efficient and productive as the result of continuous scientific improvements, physiological and psychological research and particularly, the privilege of writing off for tax purposes potential plant obsolescence currently along with physical depreciation.

Most of the conflicts between capital and labor had been ironed out following the 1972 Congress of Associations during which standards for determining the sharing of product between capital, labor, and management were agreed to by the various groups affected and were ratified by the Congress. You are relieved to find that the free enterprise system is still operative but with more controls than obtained under the Truman administration. However, you learn that these controls originate from deliberations of the Congress of Associations which consists of representatives from each of the 150 basic trade, labor, and professional organizations of the nation. This body has no legislative power, but in addition to making recommendations to the Congress of the United States it is empowered to coordinate and police legislation affecting industry passed by the Congress.

Musing over these things as you close the almanac, you are convinced that 2000 A. D. is a pretty interesting period in which to be living, brightened perhaps somewhat by the newspaper reports of the week previous of the first successful space ship visit to and return from the moon.

But interesting as all these things may be, we remember that the purpose of our visit to the year 2000 is to learn what is happening in the world of accounting. Due to the limited time allotted we shall investigate only three aspects of the subject, namely: (1) organization of public accounting practice, (2) auditing procedure, and

briefly (3) professional accounting education.

From the morning newscast you learn that delegates from the various associated chapters of Professional Accountants are meeting in the city you are visiting. You arrive at the meeting just in time to hear the speaker say: "And that friends tells the story of what has happened in professional accounting organizations in the past fifty years." Chagrined at not having arrived early enough to have heard the paper you seek out the speaker who supplies you with a copy from which the following extracts were made.

PROFESSIONAL ACCOUNTING ORGANIZATIONS

Today no one is permitted to practice accounting as a profession, which includes the right to represent client or employer on accounting matters before any public body or to hold himself out as a public accountant, who has not been licensed by a state board of accountancy. There are some 262,000 individuals who have secured this license which goes by the old initials of C.P.A. but stands for Certified *Professional* Accountant and not Certified *Public* Accountant. This designation appears to have been a compromise as a result of the non-C.P.A. group's aggressive action in attempting to force all types of accounting practice under the licensing power of the states. For a time it looked as though the C.P.A. letters would give way to P.A. (professional accountant) but with agreement of the C.P.A. group to change public to professional and to broaden the examination's coverage but at the same time to lesson its difficulty, the compromise ensued. No small part of the pressure came from the newly organized group of management accountants who were interested in developing the C.M.A. certificate (chartered management accountant) but who after due deliberation agreed to go along with the Certified Professional Accountant designation and to reserve their specialty for a higher level of attainment. The reasoning of all groups was that just as there is one basic examination and licensing procedure for medicine, law, engineering, and the like, irrespective of whether the professional is engaged in public or private practice, so also there should be but one such examination and designation in professional accounting.

The Treasury Department early in 1960 passed a ruling that every one who prepared tax returns for another was required to be registered with the Department. After 1970, registration required that he be either a licensed attorney or a Certified Professional Accountant.

The tussle with the lawyers over tax practice had been long, acrimonious, and replete with harsh words and bitter debate. Numerous state legislatures were bombarded with bills to legalize tax practice to public accountants only. The courts had their siege of tax cases involving the presumed unauthorized practice of law. The saner heads in both accounting and legal organizations, however, finally got together and formed the Institute of Tax Practitioners to include both lawyers and Certified Professional Accountants. Membership was not automatic—at first it was by oral examination, but by 1980 admission to the Institute required a thorough knowledge on the part of accountants of contracts, evidence, wills, administrative law, constitutional law, and tax court procedure. The lawyers were required to demonstrate their knowledge of basic financial accounting, auditing techniques and, of course, a comprehensive understanding of Federal income, estate and social security taxes. Admission to the Institute of Tax Practitioners was granted, in addition, only after evidence of successful practice on his own account or in the office of a qualified lawyer or C.P.A.

for a period of at least four years. Fellow membership in the Institute provided automatically the right to practice before the Tax Court as well as the lower Board of Tax Appeals. By 1999 the letters F.I.T.P. behind a man's name were almost as essential in tax practice as membership in the College of Surgeons was to perform operations in any accredited hospital in the country.

But in spite of the good relations between lawyers and accountants in tax matters, by the end of the 20th century, statistics were bearing out a prediction made in 1955 that law firms would get an increasingly larger share of the better tax practice. Tax departments of law firms manned by both C.P.A.'s and attorneys had become the rule rather than the exception. Law schools required courses in tax practice as a prerequisite to graduation, and federal taxation was one of the subjects on all bar examinations well before the turn of the century.

To offset this curtailment of their most consistent revenue source, most public accounting firms organized divisions of their practice under the heading of "Management Services." True some accounting firms had specialized in such work even before 1950, but by 1980 the revenue from this type of professional activity had reached the point where it exceeded or was at least equal to the fees received from tax work.

But other groups not C.P.A.'s had entered this public management field. One such group called themselves public controllers and were bombarding the legislatures for protection against other competing groups, even C.P.A.'s. Other groups calling themselves accounting engineers, management consultants, and management engineers found themselves at cross purposes with both licensed Professional Engineers and Certified Professional Accountants. It was at this point that the professional accountants and engineers joined forces to prevent unauthorized practice of accounting and engineering by upstart groups. It was also the occasion for many joint conferences between engineers and accountants at both state and national levels to iron out their differences and to define just where each profession's work began and ended.

By 1985 the arrangement between accountants and engineers had become so impregnable against attack that the accounting group thought the time ripe for placing some restrictions on those who practiced management services. Accordingly, the College of Management Accountants was formed to include only those C.P.A.'s who had served an internship under capable specialists and who showed capacity as a senior accountant in the field of systems and managerial accounting services. While such internship was normally considered a minimum of four years, the real test consisted of a series of examinations in electronic and accounting machine application: cost and budgetary procedures; industrial management including quality control, and time and motion study; management audits; personnel practices; and other comparable topics. Only persons so qualified were entitled to use the letters F.C.M.A. By the year 2000 this group of specialists had established themselves so well with both large and small business concerns as to have a virtual monopoly on the type of practice whether as a public practitioner or as a systems and method expert in an industrial organization.

The American Institute of Accountants during the fifty year span had followed the pattern in accounting that the American Bar Association and the American Medical Association performed nationally for law and medicine. As a matter of fact these three organizations became the most powerful in the Congress of Associations

as well as politically throughout the nation. Public relations, ethics, research, standards of practice, and coordination of state accounting societies comprise its chief activities. Back in the seventies an effort had been made to set up a specialty board of auditing somewhat comparable to what had been done in Federal taxation and Management Services. After much deliberation it was agreed, even by the Institute of Internal Auditors, that auditing and principles of financial accounting were basic to accounting practice and should remain with the mother organization.

The American Institute's place in the development of accounting principles had taken a rather interesting turn. In the 1950's, it considered only special topics as they seemed to press for a solution, but by 1980 more pure research in theory was being provided. Several things caused this change, chief of which were:

(1) Public demand for a clear explanation and interpretation of "accepted accounting principles."
(2) Refusal of the Bureau of Internal Revenue and the courts to accept statements of C.P.A.'s as a basis for tax determinations in the absence of a universally accepted statement and codification of accounting principles.
(3) The fact that each major trade association was beginning to set out what is conceived to be generally accepted accounting principles in its respective area of commerce and industry, and
(4) The tremendous impression made by the teachers' groups, particularly the American Accounting Association, in setting forth its pronouncements on accounting theories and principles.

As a consequence, the Institute's Committee on Accounting Procedure in 1975, after twenty years of study and research produced two important bulletins: "Fundamentals Underlying Accounting Principles Basic to Profit Motive Organizations"; and "Criteria for Materiality in Accounting."

The principles statement was particularly difficult to write due to the gradual abandonment in the late fifties of the original historical cost concept. This abandonment followed closely on the heels of Bulletin 45 of the Committee on Accounting Procedure in 1955 entitled "Current Costs Vs. Historical Costs." In this bulletin the Institute's Committee assented to depreciation in the income statement, computed on the adjusted costs of fixed assets in terms of dollars of current purchasing power, to be in accordance with generally accepted accounting principles.

STATUS OF AUDITING

In the paper from which the previous extracts were made, you note a reference to the New York C.P.A. Centennial Celebration, 1896–1996. Feeling secure in the belief that the program for this celebration surely carried an article in Auditing, you search out the proceedings of this meeting and as expected, there it is! The article in question is a report on a symposium entitled "Auditing Today and How it Got That Way." A brief of significant parts of this report revealed the following:

Auditing as a technique and as a profession had reached the age of maturity. Auditing standards which had been discussed profusely and followed about as each practitioner pleased, in the middle of the 20th century, had become rules of practice any deviation from which was grounds for prompt disciplining of the offender. Likewise, rules of professional conduct had been written into all state statutes. The attitude of State Boards of Accountancy on violations had changed from that of mild reprimand to one of stern action, in many cases culminating in suspension or

cancelling of the license to practice. As a consequence inclusion of the words "in accordance with generally accepted auditing standards" was no longer necessary in the auditor's opinion.

Inasmuch as the public had never fully understood how the C.P.A. could be independent on one engagement such as an audit, and yet serve in the capacity of a solicitor in a tax engagement or a consultant on matters of management services, every report must now state whether the engagement was conducted on the basis of that of an independent accountant or otherwise.

Accordingly, the most up-to-date short-form report of a public accountant reads:

> We have examined, as independent accountants, the 1999 operating and financial statements of ABC Company of X City. In our judgment, these statements present fairly the financial condition of said company at December 31, 1999 and the results of its operations for the year then ended.

The small local firms of public accountants had found it increasingly difficult to stay abreast of the tremendous amount of technical knowledge and broad experience required of the profession. For this and other reasons many small local firms consolidated their practices and departmentalized, some by types of clients, others by types of services performed. But in spite of this improvement in proficiency of local firms, the national firms continued to expand geographically and in size, chiefly by merger of local firms. During the 1956–63 Economic Recession, local practitioners accused the national firms of being more akin to business enterprises than to firms of professional individuals. In some states an effort was made to prevent accounting firms from being licensed to practice unless all persons whose names appeared in the firm name were alive. While this program failed as such, by 1990 most states required that at least one local partner's name be shown added to the established firm name. For example, the Tulsa Office of Price, Waterhouse & Company became Price, Waterhouse, McAdams & Company.

Concomitant with the higher standards required of C.P.A.'s came greater confidence in their reports. Many state and national agencies which previously maintained staffs to examine or audit business organizations which they regulated or with which they were otherwise concerned have since been willing to accept the reports of independent auditors. As a consequence, the number of state and national bank examiners have been materially decreased. The same situation applied with respect to audits of insurance companies, governmental units, building and loan associations, credit unions, common carriers, taxing agencies and many other such governmental bureaus and commissions. Neither the Federal government nor the state is now in competition with public accountants.

Labor organizations no longer consider auditors to be management hirelings but are pleased to have their opinions on financial and operating reports to labor, capital, and management. This is particularly the case with the Productivity Contribution Statement, in which the amount of the net product attributable to labor, capital, and management is cast up and becomes the basis for sharing of the net annual proceeds.

As to techniques in auditing two or three developments stand out. Following the revolution in clerical and routine bookkeeping procedures in the 1950's and 1960's, provided by electronic equipment and other machine accounting devices, there was an automatic improvement in internal controls as well as in recordative accounting efficiency. As a consequence greater reliability could be placed on a much smaller sample in the testing of accounting transactions. This, together with

research into those areas of the records wherein errors normally occurred, had permitted use of sequential analysis rather than random or spot sampling and thus allowed the auditor to give more time to interpretive aspects of the engagement and less to routine audit procedure.

"Auditing by exception" had also gained prominence as an audit principle. This was simply an adoption of the old management by exception principle and emphasized that the auditor should give special attention to those phases of the accounts and statements which were out of balance with industry statistics and standards. Such statistics and standards had become formalized due to the accounting research activities of all major trade associations.

EDUCATION FOR ACCOUNTANCY

The signal has just come through that we have only ten minutes more in which to complete our trip to the year 2000. Fortunately, the librarian had placed all of the ACCOUNTING REVIEWS close at hand and in the October, 1999 issue we find an article entitled "Recent Developments in Accounting Education." Hurriedly, we selected from this article some of the more important items and briefed them as follows:

Separate schools of accountancy were established before 1965 in a few locations. By 1985, however, most all of the larger universities, 102 to be exact, had met the stringent qualifications set by the College Standards Committees of both the A.I.A. and the A.A.A. The separate school idea was not "come by" easily as the Deans of the American Collegiate Schools of Business had strongly disapproved the separation. While most of the Schools of Accountancy provide a three year program preceded by three years of pre-professional work, some graduate schools provide a strict two-year professional program. Both two year and three year schools grant the degree of Master in Accounting or Master in Professional Accounting which calls for thirty semester hours of basic business administration, sixty semester hours of senior and graduate accounting courses and a year of internship. The Doctor in Accounting degree has become popular due to its acceptance by the accounting specialty boards in lieu of the boards' examinations.

The present listing of accountancy courses resembles only casually that of fifty years ago. The flight from historic cost in financial statement preparation required that courses such as Mathematical Economics, both Elementary and Advanced, Techniques of Evaluation, and Accounting Dynamics be added to the curriculum. The College of Management Accountants was instrumental in seeing that up to thirty semester hours of courses leading to their specialty were included in the accounting listings of most schools. Nor had the Institute of Tax Practitioners been backward in making its influence felt in this matter of courses leading to tax practice.

But it is in the area of teaching techniques that the greatest advances have been made. Visual instruction aids are routine in all accounting courses. Full professors spend most of their time with graduate conferences or gathering materials for their lectures which when canned as talkie films become part of the basic text material for the course. Once the lecture series has been filmed, the assistant professor takes over with quiz sections, laboratory supervision, and examinations. Many schools have no resident lecturing professor in accounting, making use of text films of big-named professors in other institutions. As a result of the increased teaching efficiency, it is now possible to secure 30% to 40% more work coverage than was possible in 1950. This efficiency factor has also been responsible for a broadened general and cultural education

in the first three college years so that today the liberal arts core curriculum covers, superficially at least, substantially all areas of human knowledge.

Scholarships and fellowships in accounting are the rule rather than the exception. This was made necessary in order to direct more of the best minds toward the profession of accounting. The arrangement is simple. Any high school graduate who rated in the first quartile of his A.I.A. accounting orientation and mental test may apply. If selected by one of the participating public accounting firms or industrial companies, he is given either a fellowship or scholarship sufficient to pay his essential college expenses. Acceptance by the student becomes a binding contract to accept employment with the grantor for a number of years equivalent to the scholarship period. Failure to meet this latter requirement would be cause for changing the grant to a loan.

It is with some regret that we must leave this fascinating topic, but our time in the 21st century is fast running out.

CONCLUSION

We are told that every *good* paper must have a conclusion. Since it is obvious that this is *not* a good paper, I shall forego that requirement. But in its place I should like to mention some of the articles in the ACCOUNTING REVIEW, issue of January 2000.

Accounting Review—January 2000

Leading articles

"Direct Costing Vs. Standard Costs in the Flying Saucer Industry"
"A Eulogy on the Demise of Double Entry"
"Per Diem Allowances for Interstellar Travel"
"Symposium: How Much Mathematics is Required in Training the Programmer for Electronic Machine Operations"
"Evaluation of Overhead Distribution Methods in the Manufacture of Atomic Reactors"

Editorials

"The Standards Rating Committee Is Not Unfair to the Small College" A Reply.
"Reluctantly, the Courts Finally Recognize Accountancy as One of the Learned Professions"
"Have the Sacred Cows in Accounting of 1953 Been Replaced by the Holy Hogs of 2000?"

NOTE ON INSTALLMENT LOAN REBATES

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IT CAN well be stressed repeatedly that the ultimate point of reference in any mathematical development in the field of installment finance is or at least ought to be the compound interest (actuarial) method. We do not imply that pure actuarial theory should be introduced into practical day-to-day usage in installment transactions. But we do assert that the mathematical relation between pure theory and the various practical short-cuts and simplified methods in use should be clearly established in the literature on the subject.

Several of the common formulas for determining the rate of interest in installment payment plans have been shown to be approximations (of varying merit) to the actuarially determined rate.[1]

In the present paper we relate the so-called "Rule of 78" method of figuring rebates in pay-offs, to the theoretically equitable rebate found by the compound interest method.

Suppose that a loan of B is to be repaid by n payments (usually monthly) of R each. The total loan cost is $I = Rn - B$. Let s be the number of payments still unpaid when the borrower desires to pay off the loan. If he continued payments by schedule, he would pay a total of Rs. The amount deducted from the gross balance Rs because of prepayment is called the refund or rebate.

The "Rule of 78" method has that name because on a 12-payment loan the sum of the integers from 1 to 12 equals 78. It is also known as the "Sum of Digits" method. On an 18-payment loan paid off when the 14th payment is due, $n = 18$, $s = 4$, and the rebate factor is

$$\frac{\sum s}{\sum n} = \frac{s(s+1)}{2} \div \frac{n(n+1)}{2} = \frac{10}{171} = .05848$$

or

$$\frac{\sum s}{\sum n} = \frac{s(s+1)}{n(n+1)} = \frac{20}{342} = .05848.$$

Let θ be the equitable portion of the total loan cost I which should be rebated in the pay-off, according to compound interest theory. Then the proper rebate θI is

$$\theta I = Rs - Ra_{\overline{s}|} \text{ at rate } i;$$

but $I = Rn - B = Rn - Ra_{\overline{n}|}$; hence

$$\theta(Rn - Ra_{\overline{n}|}) = Rs - Ra_{\overline{s}|}.$$

Dividing both sides by R and solving for θ, we have

$$\theta = \frac{s - a_{\overline{s}|}}{n - a_{\overline{n}|}}. \tag{1}$$

Although (1) can be found by tables, in most consumer transactions the rate is not stated, and its computation will seldom show a tabular value. We might, of course, find the approximate rate by the direct formula

$$i = \frac{6I}{3B(n+1) - I(n-1)} \quad \text{or} \quad \frac{6I}{3Rn(n+1) - 2I(n+2)}$$

or by linear interpolation in the $1/a_{\overline{n}|}$ table, and then proceed to build up a schedule

[1] Stelson, ACCOUNTING REVIEW, July, 1952, p. 366; *American Mathematical Monthly*, April, 1949, p. 257.

giving the net balance, i. e., the equitable payoff balance, at any date. Such construction of amortization schedules is, however, wholly impractical in the case of the ordinary small loan or time payment transaction.

We can express the refund factor θ in series form as follows:

$$(3)\quad \theta=\frac{a_{\bar{s}|}-s}{a_{\bar{n}|}-n}=\frac{s(s+1)}{n(n+1)}\left[1+\frac{(n-s)}{3}i+\frac{(n-s)}{36}(n-3s-7)i^2+\frac{(n-s)}{540}(9s^2-6ns-n^2-19n+51s+74)i^3+\cdots\right].$$

If we stop with the first term in the brackets, we have a first approximation to θ

$$(4)\qquad \theta_1=\frac{s(s+1)}{n(n+1)},$$

which is the "Rule of 78" rebate factor.

The error in using this factor is given by

$$(5)\quad \epsilon(s)=\frac{s(s+1)}{n(n+1)}\,\frac{(n-s)}{3}\,i\cdot\left[1+\frac{(n-3s-7)}{12}i+\cdots\right].$$

Since $\epsilon(0)=0$ and $\epsilon(n)=0$ and $\epsilon(s)>0$ for $0<s<n$, there is a maximum value for $\epsilon(s)$ in the range from 0 to n. It can be shown that this maximum occurs when $s\cong 2n/3$.

The maximum error is about $ni/20$ and the average error is $ni/36$. Thus for usual values of n and i the error is small. The error favors the lender, which is generally considered justifiable in view of the fixed expense of a loan.[2]

By basing our approximation on one more term of series (3), we find

$$(6)\qquad \theta_2=\frac{s(s+1)}{n(n+1)}\left[\frac{1+\dfrac{n+2}{3}i}{1+\dfrac{s+2}{3}i}\right]$$

which gives a result very close to that by the actuarial formula (1). The i in (6) may be determined by (2).

[2] Some states, while recognizing the "Rule of 78" method, permit a reduction of the rebate found by it for the first few months of a loan, in order to allow for the fixed expense. (Mortage lenders get at the same result by requiring a penalty premium in event of an early pay-off.)

THE USE OF DOUBLE-ENTRY ACCOUNTING IN NATIONAL INCOME ACCOUNTS

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Extensive use is made of the double entry method in national income accounting. This is a brief discussion of the method in business accounting terms and covers the following topics:

1. The nature of national income accounts,
2. The nature of double entry methods used in national income accounts, and
3. An example in double entry accounting applied to the U. S. national income accounts for 1951.[1]

NATURE OF NATIONAL INCOME ACCOUNTS

National income accounts usually cover two broad phases of economic activity. The first of these is the production of the entire economy. The second covers the disposition of production among *final users*. For these purposes, the accounting system requires one or more accounts to record *production* and one or more accounts to record the *disposition* of production among *final users*. The production account (or accounts) shows unduplicated costs of output as debits and unduplicated output[2] of commodities and services as credits. Each of the accounts used to record disposition of production among final users is essentially a receipts and expenditure type of account. Expenses or costs are shown as debits; income or receipts as credits. It should be noted that these accounts differ from ordinary business accounts in one important respect; they do not contain data for a balance sheet. The system of accounts is built primarily around production and its disposition.

The number of accounts will depend in part on the number of areas for which information is desired and in part on the availability of data. Production, for example, may be covered by an over-all production account. This account may be supplemented by subsidiary accounts to cover the production of business, of government, of persons, etc. In accounting for the disposition of output to final users, many alternatives are possible. Separate accounts may be set up for broad areas of users such as persons, government, foreign trade, etc. These final user accounts may be further subdivided in order to show separately capital formation and operations on a current basis. Another variation of final user accounts might consist of several current accounts but only one account for capital formation.[3]

[1] This paper presents the personal views of the author who is a member of the National Income Division of the Department of Commerce. An earlier version of this paper was presented to the National Income Committee of the American Accounting Association in May, 1952. The papers were prepared at the suggestion of E. L. Kohler, Chairman of the Committee.

[2] Theoretically, it is of course possible to set up national production accounts on bases other than unduplicated costs and unduplicated output. Those in general use, however, are usually on an unduplicated basis.

[3] For purposes of this discussion, the accounts are classified by activity (i.e. production accounts to record costs and output, and expenditure type accounts to record disposition of production to final users). Another classification which is frequently used is by transactors or sectors (e.g. all accounts for persons comprise the persons sector, all accounts for government comprise the government sector, etc.). A composite classification using transactors for some groups of accounts and activities for other groups is also frequently used.

The production account is of particular importance in that it is the production generated in this account which is to be accounted for in terms of flows throughout the economy. An examination of the nature of this key account is pertinent.

In the production account appear total unduplicated costs (debits) including profits and total output of final products (credits). By final products is meant, in general, products and services which when purchased will not be resold. For example, final products include finished products sold to persons for their use. The same items sold to a business as materials or supplies chargeable to expense would not be final products but intermediate products.

Conceptually, the production account may be derived from a summary of ordinary profit and loss statements for the entire economy. The nature of the adjustments required can readily be ascertained by remembering that the production account is to show unduplicated costs on the left side and unduplicated output of products and services on the right side. The problem of duplication is particularly important. On the cost side (debit) these duplications take the form of purchases of materials, supplies, and services for current account; these items are already included on the cost side in the form of salaries and wages, interest, profit, etc. of the suppliers of the materials, supplies and services. On the income side (credit), the duplication takes on the form of sales of the same materials, supplies, and services (intermediate products) to business firms. Duplication is eliminated by deducting purchases of materials, supplies, and services from sales. For the economy as a whole, these purchases of intermediate products will cancel out against the sales of intermediate products thus leaving only sales of final products and services.

Aside from these duplications, adjustments are also necessary to place all product output items on the output side (credit) and all cost items on the cost side. For example:

1. Inventory changes are transferred from cost side to the product side since they must be added algebraically to sales to obtain total output.
2. Imports are transferred from the cost side to the product side and netted against exports.
3. Income items other than sales of final products and services must be transferred to the cost side and netted against similar cost items, e.g., interest received and dividends received.

These adjustments transform a summary of profit and loss statements into a production account in which unduplicated costs appear as debits and unduplicated output of products appear as credits. Thus, the production account involves essentially an accounting for transactions usually found in a profit and loss statement.

The following hypothetical example illustrates the procedure whereby the production account may be derived from a summary of profit and loss statements. The first double entry column contains the profit and loss summary for an economy. The second double entry column shows the adjustments which are necessary to convert the profit and loss summary to a production account. The final double entry column contains the derived production account.

From the production account columns of the conversion table, a production account is drawn.

This demonstration is of considerable theoretical importance in that it shows the close conceptual relationship between the profit and loss statement of business accounting and the production account of national income accounting. In actual practice, summary profit and loss data are

Example of Conversion of Profit and Loss Summary Statement for an Economy to a Production Account
(millions of dollars)

	Profit & Loss Summary		Adjustments		Production Account	
	Expense Dr	Income Cr	Dr	Cr	Costs Dr	Output Cr
Sales and other receipts (credits)						
Sales to persons		175				175
Sales to government		45				45
Sales of new equipment to business		75				75
Sales of materials and services to business		190	190[1]			0
Exports		2	1[2]			1
Interest received		1	1[3]			
Dividends received		2	2[4]			
Inventory increase			5[5]			−5
Cost (debits)						
Purchases of materials and supplies (domestic)	190			190[1]		
Imports	1			1[2]		
Inventory decrease	5			5[5]		
Wages	210				210	
Taxes	24				24	
Depreciation	35				35	
Interest paid	3			1[3]	2	
Profits after taxes	22			2[4]	20	
Dividends paid	(5)			(2)[4]	(3)	
Undistributed profits	(17)				(17)	
Totals	490	490	199	199	291	291

Explanation of adjustments column:
[1] To eliminate duplications due to business purchases for current account by matching purchases against sales of these materials and services (i.e. intermediate products).
[2] To deduct imports from exports and count only the net balance as final product output.
[3] To net interest costs of business by deducting interest income of business from interest costs of business.
[4] To net dividend payments of business by deducting dividends received by business from dividends paid by business.
[5] To count business inventory increases (+) or decreases (−) as output.

not available either in sufficient detail or coverage with which to prepare the production account. The account is constructed by estimation procedures in which many more or less independent sources of data are used.

Production Account (National Income and Product Account)
(Millions of Dollars)

Costs			Output	
Wages		210	Sales to persons (personal consumption expenditures)	175
Net interest paid		2	Sales to government (government purchases)	45
Taxes		24	Net exports less gifts (net foreign investment)	1
Depreciation		35	Sales of capital assets to business and inventory change (private domestic investment)	70
Profits after taxes		20		
Net dividends paid	3			
Undistributed profits	17			
Total unduplicated costs (Total charges against gross national product)		291	Total output of final products and services (Gross national product)	291

The income and expenditure accounts for persons and for government are usually similar to those in everyday use by governmental bodies. As previously indicated, expenditures are shown as debits and income or receipts as credits. The income and expenditure account for foreign trade is essentially similar to the ordinary receipts and expenditures account. The capital account shows as debits the total investment during the year in the form of gross additions to capital assets, business inventory change, and net foreign investment. Credits appear as savings which made the investment possible.

DOUBLE ENTRY IN NATIONAL-INCOME ACCOUNTS

In general, the mechanics of double entry recording in national income accounting are relatively simple. A cost item (debit) in the production account is an income item (credit) for some expenditure type account. Wages, for example, are a cost item in the production account and an income item in the persons account. Conversely, an income item (credit) in the production account is an expense or cost item for some expenditure type account. Sales of shoes, for example, are an income item in the production account and an expense item in the persons account. In addition, there are flows between the expenditure type accounts themselves. For example, personal taxes are recorded as expense (debit) in the persons account and as income (credit) in the government account. Any open balances remaining in the accounts are transferred to the capital account.

Some of the similarities between national income accounts and those used by business and governmental bodies have already been suggested. Actually, much of the double entry system used in everyday accounting is also implicit in national income accounting. However, the absence of balance sheets in the accounts leads to an abridged double entry notation. In national income accounting, all dual cash entries (or dual entries involving claims to cash) are consolidated as between areas and thus eliminated. For example, consider the following entries between the production accounts and the personal expenditures accounts. Suppose cash wages of $100 billions are paid to persons. Then the usual business accounting procedure is as follows.

Production Accounts

Wages		*Cash*	
Costs	Output	Receipts	Expend.
(1a) 100			100 (1a)

Persons Accounts

Wages		*Cash*	
Expense	Income	Receipts	Expend.
	100 (1b)	(1b) 100	

But national income accounting is concerned only with the product portion of this dual transaction and the costs incident thereto; the cash portion of the dual transaction is disregarded. Thus for national income purposes, the dual cash entries (or claims to cash) are in effect eliminated by consolidation with the following result:

Production Account		*Persons Account*	
Costs	Output	Expense	Income
(1) Wages 100			Wages 100 (1)

The same principle applies to transactions between other accounts.

In passing, it may be worth noting that if the object of the accounts was to present balance sheets by areas (i.e. for business, for persons, etc.) for the economy as well as a production statement, then the money flow items between areas would not have been consolidated. Also, if one were interested in money flows and not in production flows, the consolidation procedure would have eliminated wages instead of cash. As the accounts now stand, however, all items of a profit and loss nature have

been preserved in the consolidation. The balance sheet type items which remain are few in number. They are limited for the most part to entries in the capital account. For example, charges will be made to the capital account for purchases of capital assets, inventory increases, and the foreign trade balance; credits will be entered for depreciation, undistributed profits, personal saving, government saving (+) or deficit (−). Each of these is a balance sheet type item. Changes in other balance sheet items, however, such as cash, accounts and notes receivable (or payable), bond investments (or debt), and common stock have each disappeared in the consolidation.

The principles and procedures involved may be illustrated by applying this form of double entry accounting to the U. S. national-income accounts for 1951.

AN EXAMPLE—THE U. S. NATIONAL INCOME ACCOUNTS, 1951

Essentially, the U. S. national income accounts consist of a control account for production (National Income and Product Account), a subsidiary production account for business (Consolidated Business Income and Product Account), and several income and expenditure type accounts: one for persons (Personal Income and Expenditure Account), one for government (Consolidated Government Receipts and Expenditure Account), one for foreign trade (Rest of World Account), and a capital account (Gross Saving and Investment Account).

The production account (National Income and Product Account) is the production control account for the economy.[4] Unduplicated costs are shown as debits; unduplicated output of final products as credits.

[4] A description of this account is given in the ACCOUNTING REVIEW for April 1952, in the paper on "The National Income and Product Account," pp. 211–21.

The business account (Consolidated Business Income and Product Account) is a subsidiary production account showing the consolidated activity of all business enterprises. As in the instance of the production control account, unduplicated costs appear as debits and unduplicated output as credits.

Disposition of production to final users is made through separate accounts for persons, government, foreign and capital.

The persons account (Personal Income and Expenditure Account) summarizes the transactions of persons with other groups in the economy. Debits to the account consist of personal consumption expenditures, personal tax and nontax payments, and personal saving. Credits include all income received by persons of which wages and salaries is of course the principal item.

The government account (Consolidated Government Receipts and Expenditures Account) is essentially a consolidated statement covering local, State, and Federal Government. Expenditures are shown as debits; receipts as credits. Debits consist primarily of purchases of goods and services, transfer payments, net interest paid, and surplus or deficit. Credits consist primarily of taxes and also include contributions for social insurance.

The foreign account (Rest of the World Account) summarizes transactions with other countries. Transactions are netted on the debit side of the account.

The capital account (Gross Saving and Investment Account) shows as debits the private investment which occurred during the period in the form of additions to private capital assets, change in private business inventories, and the foreign trade account balance. As credits are shown the savings which made the investment possible, i.e. undistributed corporate profits, personal savings, etc.

In Table 1, the short-cut double-entry

TABLE 1. U. S. NATIONAL ACCOUNTS—1951
(Billions of Dollars)

Description of Entry	Production Account		Persons Account		Government Account		Foreign Account		Capital Account	
	Costs	Product Output	Expense	Income	Expenditure	Receipts	Net Current Expenditure	Owing to U. S.	Investment	Source of Saving
PRODUCTION COSTS										
1. Compensation of employees										
a. Wages and salaries, actual and imputed, paid by—	169.9									
Business				137.4						
Persons				6.4						
Government				26.1						
Foreign, net				*						
Excess of wage accruals over disbursements				*						
b. Supplements to wages and salaries—	9.0									
Employer contributions to social security by—										
Business						3.7				
Persons						0.1				
Government						1.0				
Other employer labor costs paid by—										
Business				3.9						
Persons				*						
Government				0.3						
2. Income of unincorporated enterprises—										
Net income of unincorporated businesses before income taxes (LIFO basis)[1]	41.8									
Net income of unincorporated businesses before income taxes and LIFO adjustment				42.2						
Inventory-valuation (LIFO) adjustment[1]				−0.4						
3. Net rental income of persons (including Imputed from owner-occupied housing) before income taxes	8.9			8.9						
4. Net corporate income before income taxes (LIFO basis)[1]—	41.6									
Corporate income taxes accrued						24.2				
Dividends paid to persons (by business 8.6; by foreign 0.4)				9.0						
Undistributed profits before LIFO adjustment (business 8.7; foreign 0.9)										9.6
Inventory-valuation (LIFO) adjustment[1]										−1.2
5. Interest, paid by—				11.3						
Business, net, including imputed	4.2									
Persons	1.9									
Government, net					4.9					
Foreign, net	0.3									
National income	277.6									
6. Indirect business tax and nontax liability	25.3					25.3				
7. Business transfer payments (gifts, bad-debt losses, etc.)	0.9			0.9						
8. Statistical discrepancy	1.4									1.4
9. Current surplus of government enterprises less government subsidies	−0.6				0.6					
Charges against net national product	304.6									
10. Capital consumption allowances, consisting of depreciation, fire losses, capital charges by business to expense	24.6									24.6
DISPOSITION OF FINAL PRODUCT OUTPUT										
11. Sales to persons (personal consumption expenditures) by—		208 0								
Business (including imputations)			198.1							
Persons			8.4							
Net imports less net gifts from foreign			1.5							
12. Sales to government (goods and services) by—		62.								
Business					31.9					
Government (compensation of government employees including military service)					27.4					
Net imports less net gifts from foreign					3.2					

TABLE 1—(*continued*)
(Billions of Dollars)

Description of Entry	Production Account: Costs	Production Account: Product Output	Persons Account: Expense	Persons Account: Income	Government Account: Expenditures	Government Account: Receipts	Foreign Account: Net Current Expenditure	Foreign Account: Owing to U. S.	Capital Account: Investment	Capital Account: Source of Saving
13. Gross private domestic investment—		58.5								
Sales to business of new capital assets except land									48.2	
Change in business inventories (LIFO basis)[1]									10.3	
14. Net exports of goods and services less net gifts (net foreign investment)—		0.2								
Net production from factor services to foreign (wages and salaries;* interest 0.3; dividends 0.4; branch profits 0.9)							1.6			
Net exports less net gifts to foreign by—										
Business							3.3			
Government							−3.2			
Persons							−1.5			
OTHER TRANSACTIONS										
15. Other payments to government by persons—						32.5				
Personal tax and nontax payments			29.1							
Employee contributions for social insurance				−3.4						
16. Government transfer payments to persons (social insurance benefits, aid to veterans, relief, etc.)				11.5	11.5					
17. Personal saving (total savings of persons)			17.0							17.0
18. Surplus of government					7.3					7.3
19. Balance to U. S. on foreign trade (net disinvestment in U. S.)								0.2	0.2	
SUMMARY TOTALS OF ACCOUNTS										
Unduplicated costs of production (charges against gross national product)	329.2									
Output of final products and services (gross national product)		329.2								
Personal outlay and saving			254.1							
Personal income				254.1						
Government expenditures and surplus					86.8					
Government receipts						86.8				
Net exports less net gifts (net current payments to U. S. from abroad							0.2			
Balance to U. S. on foreign trade (net disinvestment in U. S. from abroad								0.2		
Gross additions to business capital assets, inventory change, foreign balance (gross investment)									58.7	
Total savings (gross private saving and government surplus)										58.7

* Less than $.05 billion.
[1] LIFO designations are approximations as described in *1951 National Income Supplement, Survey of Current Business*, U. S. Department of Commerce, pp. 38–39.

method is applied to show that the U. S. national income accounts form a complete double entry system of accounts. A double entry column is shown for the production control account and for each of the four expenditure type accounts, viz., persons, government, foreign trade, and additions to capital assets. The data are the estimates for the year 1951 and were taken from the national income and product tables shown in the *Survey of Current Business* for July 1952 (pp. 10 and 11).

The general order of listing is as follows. Production costs are taken from the production control account (National Income and Product Account) in the *Survey*. Each production cost item is recorded simultaneously in the production account (debit) of the table and in relevant expenditure type account (credit). Then the product output side of the production account is similarly recorded; simultaneous entries are made for product output in the production account (credit) of the table and in the proper expenditure type accounts (debit). This completes the entries for the production account. Each of the other accounts is then completed by recording transactions not already accounted for. At the same time, the related counterpart entry is made. Finally, open balances in the accounts for persons, government, and foreign trade are closed out to the capital account. Each of the five accounts is now in balance. Summary totals of the accounts are shown at the bottom of the table.

The entries in Table 1 correspond to those shown in the national income Tables (I, III, IV, V and VI) on pages 10 and 11 of the *Survey* except for government surplus which has been shown as a debit (instead of a credit) in the government account and a credit (instead of a debit) in the savings and investment account.

In those instances where business accounting terminology and national income terminology differ, an attempt has been made to show both. This sometimes leads to accounting designations which may not be strictly accurate. For example, the use of the term "LIFO" in Table 1 is a good approximation but not always strictly accurate. Another example is in the use of the word "sales" to cover items which also include imputations. Another instance is in Table 2 where the disposition of the output in the various production accounts is labeled "sales"; in the government account, wages and salaries paid by government are classified as sales to government by government. All in all, however, it is felt that the dual designations help to explain the broad outlines of the system of accounts now in use.[5] Table 1 thus illustrates how the U. S. national income accounts form a complete double entry system of accounts. The table also shows at a glance the interrelationship of the various accounts.

The U. S. national income accounts contain sufficient detail to construct the subsidiary production accounts. The production control account for the U. S. may be thought to consist of four subsidiary production accounts—one for business, persons, government, and foreign trade. The business account is by far the most important of the subsidiary production accounts and covers about 90 per cent of all output. This account includes all production activity of business firms, including that of government enterprises. The business account is shown as a separate account in the *Survey* (Consolidated Business Income and Product Account).

The other subsidiary production accounts are not shown separately. They are included as an identifiable part of the

[5] For a general explanation of the conceptual framework of the U. S. national income statistics, the reader is referred to Part II of the 1951 *National Income Supplement* to the *Survey of Current Business* (pp. 19 to 55). A detailed explanation of sources and methods of national income estimation is given in Part III of the same supplement (pp. 55–193).

TABLE 2. ANALYSIS OF U. S. PRODUCTION COSTS AND OUTPUT BY SOURCE, 1951
(Billions of Dollars)

		Account Source			
	Total	*Business*	*Persons*	*Government*	*Foreign*
PRODUCTION COSTS					
1. Compensation of employees					
a. Wages and salaries paid, including imputed	169.9	137.4	6.4	26.1	*
Excess of wage accruals over disbursements	*	*			
b. Supplements to wages and salaries	9.0	7.6	0.1	1.3	
2. Income of unincorporated enterprises—					
Net income of unincorporated businesses before income taxes (LIFO basis)[1]	41.8	41.8			
Net income of unincorporated businesses before income taxes and LIFO adjustment	(42.2)	(42.2)			
Inventory-valuation (LIFO) adjustment[1]	(−0.4)	(−0.4)			
3. Net rental income of persons (including imputed from owner-occupied housing) before income taxes	8.9	8.9			
4. Net corporate income before income taxes (LIFO basis)[1]—	41.6	40.3			1.3[3]
Corporate income taxes accrued	(24.2)	(24.2)			
Dividends paid to persons	(9.0)	(8.6)			(0.4)
Undistributed profits before LIFO adjustment	(9.6)	(8.7)			(0.9)
Inventory-valuation (LIFO) adjustment[1]	(−1.2)	(−1.2)			
5. Interest—	6.4				
Paid by business, net, including imputed		4.2			
Paid by persons			1.9		
Paid by foreign, net					0.3
National income	277.6	240.2	8.4	27.4	1.6
6. Indirect business tax and nontax liability	25.3	25.3			
7. Business transfer payments (gifts, bad-debt losses, etc.)	0.9	0.9			
8. Statistical discrepancy	1.4	1.4			
9. Current surplus of government enterprises less governmental subsidies	−0.6	−0.6			
Charges against net national product	304.6	267.8	8.4	27.4	1.6
10. Capital consumption allowances, consisting of depreciation, fire losses, capital charges by business to expense	24.6	24.6			
Total unduplicated costs of production (charges against gross national product)	329.2	291.8	8.4	27.4	1.6
DISPOSITION OF FINAL PRODUCT OUTPUT					
11. Sales to persons (personal consumption expenditures), including imputations	208.0	198.1	8.4		1.5
12. Sales to government (goverment purchases of goods and services)	62.5	31.9		27.4	3.2
13. Sales of capital assets to business and business inventory changes (private domestic investment)	58.5	58.5			
14. Net exports of goods and services less net gifts (net foreign investment)	0.2	3.3			−3.1
Total output of final products and services (gross national product)	329.2	291.8	8.4	27.4	1.9

* Less than $.05 billion.
[1] *vid.* footnote 1, Table 1.
[3] Net income of foreign is after income taxes.

income and expenditure type accounts. Consequently, except for the business account, the subsidiary production accounts must be derived from an analysis of the income and expenditure accounts. In these expenditure type accounts, output items are listed first and then subtotaled as "income originating and net and gross product" (see Tables III, IV, and V in the July *Survey*, p. 11). These production items are abstracted from the expenditure type accounts to construct the production accounts for persons, government, and foreign trade. It is of course possible to set up a subsidiary production account alongside each income and expenditure account thus obviating the need for an analysis of the income and expenditure account. While this would simplify the presentation of the subsidiary production accounts, it would also increase the number of accounts in the system.[6]

[6] If separate production accounts were set up, it might be desirable to show more detail in some instances. For example, if an account were set up for production of general government and another account were set up for general government as a final user, it might be desirable to construct these two accounts so that the services performed by general government would appear explicitly. One possible approach, assuming that data could be developed, is the following: The credit side of the government income and expenditure account would show receipts; the debit

In Table 2, the production account and its subsidiary accounts are shown. The numbered entries in the production account are the same as those shown for this account in Table 1. The details necessary to prepare the subsidiary accounts are shown in Table 1 either as numbered entries or in the explanatory detail thereof.

An alternative system of national-income double entry accounting which is frequently employed consists of a business account and the usual income and expenditure accounts. In this system, the business account is an integral part of the double entry accounts. However, the production account (National Income and Product Account) must be obtained from a special analysis of the other accounts.

If a separate production account were kept for each of the subsidiary production accounts, then the double entry recording might employ one of two alternatives. The double entry recording for production might be through the subsidiary production account. In this case, the over-all production account would be a simple summary of the subsidiary production accounts. A second alternative would be to record simultaneously the detail for an item in the subsidiary accounts and the sum of the detail to the control production account thus deriving both the control and the subsidiary production accounts.

In conclusion, it can be seen that double entry accounting techniques have an important place in national income accounting. Production flows for the entire economy can be followed systematically. The accounting structure is relatively simple and possesses great flexibility. Consequently, the accounting structure can be adapted to meet changing needs or to take advantage of new important sources of data.

side would show services performed by general government, transfer payments, interest on the national debt, subsidies minus current surplus of government enterprises, and surplus (or deficit). The credit side of the general government production account would consist of the forementioned services; the debit side of the account would show the cost of producing these services. As such the debit side would consist of production originating in government (i.e., compensation of government employees including military service) and intermediate product purchases (i.e., purchases of goods and services from business and abroad).

THE GRADUATE CURRICULUM IN ACCOUNTING*

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IT IS DIFFICULT to consider the graduate curriculum entirely apart from the undergraduate curriculum. Consequently, there will inevitably appear in this discussion references to appropriate curricula for accounting students in general. The graduate student was only yesterday an undergraduate. Upon becoming a graduate he has not crossed a great divide, but has merely evolved into a new area of his continuing process of educational development, that is, the development of himself as an individual.

THE STUDENT

This statement introduces the first point of emphasis: The student's welfare is paramount. The graduate curriculum must allow considerable adjustment to the needs of individual students. This is even more true of graduate students than of the undergraduates in view of their greater diversity of background. Applicants to your graduate school will range all the way from the man who was an accounting major as an undergraduate (which may mean that he has done so much work in the field that he thinks an accounting steam-roller has run over him), to the liberal arts graduate who majored in mathematics or English or to the law school product of twenty years ago.

Some hopeful graduate students, therefore, may need to concentrate on "broadening" their training. Others who have had their share of this diversification will desire and will need to devote most of their time to accounting.

Of one thing we can be reasonably certain about our graduate students: few, indeed, will have moved very far in their undergraduate days toward developing their capacity in communication and in independent, critical thought. In these modern times it seems we just cannot get time for those fundamentals in the first sixteen years of training in school. There is more to be said later on this point.

There are other things we can say about the students beginning graduate work. Although they may have weaknesses in their backgrounds, they usually have important advantages also. They have a great interest in accounting and improving themselves. Many, having few social ties in a new environment, are able to demonstrate their interest by really devoting their time to school work. Also, though this is not always true, the graduate student has gone through a process of selection, which testifies to his ability. Theoretically, he is a selected student. Generally, graduate students have, as Professor Dohr put it, "greater maturity and better judgment; . . . they will probably not be so trusting; they should be better equipped to help themselves; they should have at least begun to suspect that life is something more than a bowl of cherries."[1]

A Broad View of the Student's Needs

In general, the student should be able to secure training to overcome his weaknesses—and thus to become, in the fullest sense of the term, an educated accountant. I think we still have a right to expect to confer master's degrees only on those

* Presented at the Southeastern Regional meeting of the American Accounting Association of Tuscaloosa, Alabama, May 2, 1952.

[1] THE ACCOUNTING REVIEW, April, 1948, p. 206.

whom we can call educated without tongue in cheek.

First, let us consider the liberal arts graduate who has had, typically, a year or less of work in accounting and possibly the elementary economics course. This man has already acquired the so-called broad background. He needs a great deal of concentrated work in the fields of business, especially in accounting.

I would not be one to insist that this man run through the whole program of the business administration undergraduate. Statistics, business law, and economic theory—yes. Those courses are fundamental and can hardly be further condensed. But, the broadening business administration courses can be covered in graduate survey-type courses. A one-quarter course for each field should be ample if properly planned and conducted.

In accounting he should cover substantially the same material as the undergraduate major in accounting. Four or five quarters probably will be needed to see him through his graduate work even if he is given elementary accounting as a concentrated dose in a special graduate course.

Some college graduates who come for additional training will have had majors in some business field other than accounting. Such a student will need to build up his background in accounting and often in economic theory.[2]

Some students, the ordinary accounting majors in recognized universities, will have very little weakness with respect to courses except possibly for needing some advanced work in economics.

Probably each of the typical graduate students I have mentioned will need training in research and writing prior to beginning work on his thesis. The infrequent exceptional case merely proves the rule. Perhaps a good way to meet this problem is by a graduate accounting course of the seminar type in which accounting with all its concepts and conventions should be examined critically with a view that the student come to understand the purposes and limitations of accounting and its place in modern society and that he be given a chance to apply this learning in the analysis of all sides of current controversial issues. This amounts to taking a good, long look at accounting; not to cramming more knowledge hurriedly into the head. It should emphasize the forest rather than the trees.

Another item of training which I think should be designated for virtually all our graduate students—all who show significant need for it, anyway—is a course in business writing. Papers prepared as seminar assignments will show rather quickly whether a particular student needs this course. In my opinion any student who has never had such training will profit greatly from a course of this type. One way to convince the student of this need is simply to grade his written reports properly, that is, not leniently. As he sees his "B" average fading away, he will usually see the point.

THE GOALS

Let us turn for a moment to the question of what it is we are trying to do in our graduate instruction. As indicated previously, I think we are trying to turn out an educated accountant. That may sound trite, but I can think of no better way to express the idea. This does not mean specialization on top of specialization. A fifth year characterized by more specialization in accounting should be designated, if a degree is received, by some special degree title. The most logical approach seems to be identifying such work by giving a degree of Bachelor in Accounting, in line with the practice in the fields of law and library science.

True, we want to turn out an educated

[2] I think of economic-theory needs as one or more one-quarter courses in price theory and some type of introduction to the so-called modern theory.

accountant; but our results will depend a great deal on the previously mentioned selection of students. As others have most effectively expressed the idea: no one has yet found the formula for converting a sow's ear into a silk purse.

Our objective is to help a reasonably well qualified graduate student on his way toward ultimate fulfillment of his potentialities.

Many have expressed the need of an accountant for a broad liberal education. We should be doubly certain that those receiving graduate degrees do not suffer from a deficiency here. S. Alexander Bell puts the matter this way:

> In this complex day and age where industry is becoming ever more and more intricately and intimately tied into all other phases of our existence—economic, sociological, and political—it would seem to be plain common sense to see that the accountant should be able to visualize the ramifications.[3]

We must have, as another writer phrased it, "capably trained citizens as well as capably trained professional specialists." Also: Education "should fit men to grapple with their duties as citizens of the community . . . a producer, a consumer, a potential warrior, a critic, a teacher in some respects a learner in others." Again: "Over-specialization in all professional work in the university has bred persons narrow in their mental horizons, and their moral and social outlooks."[4]

The Accountant-Educator Conference at the University of Michigan reported: "The profession wants men with better training in General Business and Economics. A broad general education is better preparation for final success than a too technical training in accounting. . . . A course in human relations would be more useful than a course in municipal or stock brokerage accounting."

[3] *The Journal of Accountancy*, December, 1949, p. A-8.

[4] David A. Revzan, "What Is a Balanced Curriculum in Accounting?," THE ACCOUNTING REVIEW, October, 1949, pp. 409–413.

We might summarize in this vein: It is not that the student needs specialized accounting courses *less* but that he needs less specialized courses *more*.

In my opinion, though some may challenge the statement, the colleges have been too democratic in their curriculum planning. The students specializing in a field and faculty members in the individual departments have had too much to do with deciding what courses the students need. Psychologically, specialization must be the result. One college competes with another; one department, with another. So, we have a dizzy spiral toward more and more specialization.

Perhaps specialization is a rather natural result of mass education. Colleges generally seem to have answered the question as to our objective with: "We propose to expose the student to all the facts possible, filling him especially full of facts in one particular area called the major." This is an oversimplification, of course, but our almost universal textbook approach to courses leads inevitably in that direction.

This evaluation of specialization is not to be interpreted as necessarily critical of the M.P.A. program if based on a diversified undergraduate background, but it is doubtful whether the typical B.B.A. program is broad enough for such concentration to be the most desirable training at the graduate level.

TRAINING THE STUDENT TO THINK

In all courses the approach is very important. The educated accountant has learned how to think. There is no magic formula for training the student to think, but one can say definitely that concentration on so-called *important facts* does not provide the answer. Every time we tell the student what to think we are teaching him by implication *not* to think. It has always seemed to me that one of the most valuable and interesting experiences the student can have in studying with a really effective teacher is in being able to observe

his approach to problems—seeing *how* he goes about thinking through a problem. The teacher should not deny the student that experience.

The seminar in accounting offers the best opportunity for the accounting teacher to help the graduate student to think through problems, issues, and controversy. Here something *can* be done even if the undergraduate courses remain factual in their approach.

Generally, our beginning graduate student has come up accepting the textbook as the final word. (How could he believe otherwise? It has the correct answers; doesn't it?) He has been exposed often to only one narrow set of ideas. He has quite definite notions as to what is right and what is wrong. Usually he has come to revere accounting as something faultless and reacts quickly to criticism, either expressed or implied. For example, he often thinks of economics and accounting as being "miles apart" with accounting ahead on every point of issue.

We must somehow let him in on the "secret" that there are no easy answers, often no right and wrong answers at all except on the basis of simplifying assumptions, often more misleading than revealing. He must come to realize the limitations inherent in accounting. He must discover what accounting is *not* and what it *cannot* do.

One approach is to use the "shock" treatment, pulling the supports out from under some of the pet accounting theories in which he feels so secure, many based on practical considerations rather than any real logic. After a period of serious confusion lasting perhaps a couple of months, the student usually comes up with a very healthy, realistic philosophy of accounting, and realizes how trusting he has been previously in his blind acceptance of ideas without thinking.

Naturally the discussion during this period is based on the critical analysis of the principal concepts, conventions, traditions, and assumptions on which accounting is based. This work should require at least one quarter, and the examination of all accounting theory areas could well continue over two quarters or even an entire year—even if some specialized or practical accounting courses must be slighted.

Much of the research during this time can be in the areas of recent and current accounting controversy. There is no better way to teach a student how to think than to encourage him to approach such an unsettled problem, study the arguments, pro and con, as presented by able, but often biased writers; locate the hidden assumptions and the misleading arguments; and then come up with what *he* believes about the issue and the reasons for this belief

This ideal, oversimplified perhaps, seems to be about what Professor James L. Dohr had in mind when he wrote:[5]

> What we need is a more purposeful spirit permeating the entire curriculum—a spirit which in some respects at least will be more important than courses or course-content. Men should be prepared, not so much for the specific positions or circumstances in which we think they will later find themselves, but rather to take care of themselves under any circumstances . . . they must be encouraged to "think" rather than to "learn"; they must have practice in obtaining and appraising evidence, . . .

There is no textbook for such a course. Obviously none suitable could be found. The *Saturday Review* for April 19, 1952, contains this amusing comment on textbooks in general:

> "The trouble with textbooks," writes an agitated college president, "is that they take the sport out of learning. Their authors have had all the excitement of the chase . . . and leave the student only the dead quarry." In actual fact, it is the business of the textbook to prepare the student for the chase, to give him the lay of the land, to arm him for the hunt, to point out the whereabouts of much exciting game. It is a real pity to send the uninitiated student off on a wild-goose chase without these first essentials. Left to his own devices or assigned a bewildering array

[5] The Accounting Review, April, 1948, p. 206.

of books from which to read, he may miss the fundamentals altogether. He is not much better off than the freshman who undertakes to write a paper following the advice of a sophomore: "If you lift your stuff all from one book," the wised-up guy explains, "that's plagiarism, but if you take it from two or three books and mix it up a little, that's research."

One handling a graduate seminar should not be too surprised if some of his research assignments come to such an end. Graduate students are human.

COMMUNICATION

Next we come to a detailed examination of the student's training to communicate. Some, but not many probably, will need only practice. This they can secure in the seminar and in other class work. A course in public speaking may well be recommended for some students, and a *live* course in business writing may be prescribed for virtually all.

Many writers on training for accounting have stressed the almost universal weakness of our college product in expressing themselves on paper. The Controllers Institute of America recently published a booklet entitled "Careers in Management Accounting." In it you may have read the following immediately after a list of advanced courses:

> More basic than any of these and more influential on the student's progress in corporate work is his ability to write and speak clear English when he is asked to report on a situation, analyze a problem, or project a plan. Broad economic and management courses are desirable rather than excessive specialization in professional accounting subjects.

One gets the impression that poor writing is public enemy number one to employers of young accountants. Surely we owe to our students, certainly to those at the graduate level, a chance to overcome this difficulty.

Generally, the weakest student will have the best excuses for not taking such a course. It seems impossible for the student of accounting to realize how important writing will be to him. He cannot seem to appreciate that writing may do far more to establish the ceiling in his progress in accounting work than will the extent of his school-acquired knowledge of accounting. Often students do not know enough about composition to evaluate their own poor attempts. Most students and many professors seem to prefer public utility accounting or a second course in federal taxes (to mention two courses at random) rather than a real effort to improve composition. Such is the way of specialization!

It does seem remarkable that college programs often stress such practical courses which can be imperfectly learned in school at the best and then neglect training in writing which *can* be taught in school effectively and can be learned on the job only at a great disadvantage.

We are most unfair to the graduate student when we tolerate his poor composition through his class work and then get "tough" at thesis writing time. Then his thesis costs us twice as much time and effort as would have been required if we had applied pressure earlier—not to mention the effect on the student's morale.

Reference has been omitted purposely to graduate training at the Ph.D. level. What I have said applies there also—with even more emphasis on liberal background, practice in critical analysis, and writing.

May I add just a word about theory *versus* practice in our accounting curriculum. We professors are often entirely too self-conscious about teaching "theory." We cannot teach "practice" in school; the varieties are too numerous. But we *can* do a job of laying a theory foundation for practice. Obviously, the student is better prepared if he also has had some warning that practical considerations often cause departure from perfect theory and has had some detailed guidance as to where these pitfalls are located.

DIRECT COSTING—THE CASE "FOR"

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IN TAKING the case "for" direct costing, the writer attempts to express certain arguments which reasonably can be advanced in its favor. In doing so the writer has not considered it within his scope to set forth the limitations of direct costing. Obviously, any one approach to cost determination has its limitations. Those which apply to direct costing are left to the able expression of the succeeding writer. No specific attempt is made to mesh the respective arguments for and against this method of costing.

The presentation of these arguments for and against impose upon the reader the task of making his own selection of cost finding methods and appraising the appropriateness of his choice which will be governed by what can best serve management in making decisions. This limitation of the subject is not intended to convey the impression that arguments in favor of direct costing are offered reluctantly.

THE NATURE OF DIRECT COSTING

For the purpose of this statement in favor of it, direct costing is presumed to be a certain type of emphasis on the elements of costs of operating a business. In this system direct labor and direct material costs are identified with products. Any other costs directly and conveniently traceable to products are identified with them also. This additional identification of cost with product is more likely to be found in the case of some sort of process or operation costing than in the case of job costing. Other items of manufacturing expense are considered to be over-all costs of operation in the period of occurrence.

Costs thus traceable to the fabrication of products and consequently identified with them are further identified with operations as the goods move out to the customer. Those costs not traceable to products are identified with operations in the period in which they occur.

Direct costing generally assumes giving effect to these identifications of costs in the formal records of the firm. In so doing it shifts emphasis in the records from inventory determination to cost analysis. In this respect it conforms with current emphasis on income determination, regardless of whether or not the observer agrees with that level of operating net income which this procedure discloses. In general conformity with what has happened in emphasis of net income determination in the accounts, it has incidentally deemphasized the inventory figures available in the records for reporting on the balance sheet. Inventories will tend to include material and labor costs, plus those elements of manufacturing expense which have been identified with the product through a previous identification with a process or operation basic in production of goods.

There is another quality of direct costing which should receive consideration here. It is understood that allocation of various elements of cost to products is subject to accomplishment with varying degrees of reliability. In the case of direct costing items with a definite product significance are identified with production. Those with more of a temporal than product significance are less reliably identified with products. Furthermore, they constitute a series of cost items subject to allocation with varying degrees of reliability. Direct costing eliminates identifying with the product those costs which can be so related only with a considerable margin of error.

Total costing is thought of in this paper as that system of cost finding which includes all manufacturing expense as part of product cost. It is in contrast to *direct costing*, as described above.

One caution should be made with respect to direct costing. It should not always be identified with marginal costing. As this writer thinks of it, marginal cost analysis covers all variable costs. Some such costs might not achieve product identification in a system of direct costing because of inability to achieve identification of them with certain products in the entire mix of products, such as might be the case for electric current or some portion of it. Another caution is that the identification of costs with either products or periods might be a matter of convenience in some actual operating situations. Thus, for example, freight on materials purchased might be identified with periods rather than products in order to avoid the tracing of freight down to individual batches of material, sometimes received in mixed carload lots. Again, milling-in-transit freight costs would not be identified with products in direct costing, although they appropriately would enter into a marginal cost analysis as varying costs.

THE CASE AGAINST TOTAL COSTING

Present day total costing is subject to a great deal of criticism, not because it strives to deal with all costs, but because of the way in which it deals with them. It is not uncommon for the cost man in industry to find his costs questioned. A serious question frequently hinges around the distribution of manufacturing expense.

In actual experience it has sometimes been disconcerting to the cost accountant to show that some certain product can be produced only at a loss, only to have the firm proceed with manufacture and sale and still remain solvent. Production and sale later prove to be generally profitable. Part of this inability to properly disclose costs is because of the arbitrary nature in which certain manufacturing expenses are apportioned among the various products in the firm's aggregate production.

Add to this the fact that these arbitrary and sometimes confusing allocations of manufacturing expense are accomplished with a costly process of allocation, which being subject to arbitrary judgment, is also subject to human error. This costly process of overhead allocation is also a prolonged process, which serves as an additional irritant to a management awaiting information on the cost of its goods. The averaging of costs as is traditionally done by the cost accountant and at times questioned by economists and others possesses some of its greatest weaknesses in the arbitrary manner in which certain overhead items are prorated over products.

ARGUMENT FOR DIRECT COSTING

A major argument for direct costing grows out of this objection to total costing in that it avoids questionable and arbitrary allocations of manufacturing expense to products, when in fact it bears no immediate relationship to the production achieved. Among such costs are all fixed costs, including occupancy expenses, depreciation, obsolescence, and various sunk costs. Payroll taxes also are not immediately identified as product costs as much as they are costs of having employees around until their earnings exceed that which is subject to taxation. It is not logical to say that these last types of costs should be identified with product just because it happens to be produced at the time of the year when there is a legal accrual of payroll taxes. Direct costing emphasizes that some such costs may have more of a temporal or other significance than a product significance.

By recognizing such costs as temporal rather than traceable product costs direct

costing avoids the introducing of erratics into the computation of net income by arbitrarily ascribing a product significance to costs that primarily have a temporal significance. It avoids the fallacy of assuming that any erratic in sales must necessarily be offset by a compensating erratic in cost computation. Direct costing avoids imposing such variation into accrual accounting, which actually has the purpose of clarifying and distinguishing income figures for various periods, rather than running them together. Total costing tends to emphasize the producing rather than the total activities of the business. This is avoided by direct costing.

One important objective in business analysis is the expression of differences in cost of production of different products. Real differences are obscured by inappropriately identifying period costs with products. Direct costing avoids this difficulty by confining the identification of costs with products to those identifiable with them.

In this connection it is also appropriate to observe that profits do not only result because we make products cheaply, but perhaps also because we make enough of them to absorb all of the overhead. This distinction often is overlooked in studying the economist's cost curves. Yet it is emplicit in economic analysis.

Allocation of all manufacturing overhead to products also deemphasizes the joint nature of the non-traceable costs so allocated. The allocation of such non-traceable costs to periods presumes an analysis of such costs to determine the extent to which they can be borne by various products in the firm's line. The writer suggests that this altered emphasis might be much more effective than the disclosure achieved by an arbitrary allocation of overhead to the product. Allocation of such joint costs to products is basically a means of expressing their cost absorbing qualities or, in other words, disclosing the individual gross profitabilities of products. The writer sees no reason why this should be obscured by any arbitrary ascribing of indirect costs to the product. It also raises the theoretical supposition that the aggregate of all product profitabilities is not necessarily equal to the over-all social profitability. This is a well-recognized concept of the inequality of summations of individual figures and the combined social significance of them.

Clearer thinking results by letting the sales price of the product minus the direct cost of goods sold be a merchandising margin for the recovery of all factory, selling and administrative overhead. Analysis can then show the extent to which the various products possess ability to cover portions of this aggregate of overhead.

There remains the question as to the propriety of the periodic allocation of the cost thus analyzed. A natural question is that if some items of manufacturing expense are period rather than product costs, then to what period do they apply? The accrual system of accounting has already allocated these items of cost to periods through the voucher or adjustment processes. A further allocation to the product becomes a second refinement of the periodic allocation of such costs. The system of direct costing automatically questions the degree to which such a re-expression of periodicity is necessary.

This resolving of the analysis on the basis of temporal allocation certainly is not without precedent, even for costs related to the procurement of saleable inventory. In the case of department store operations the income statement may show by departments the gross margin available from the sale of goods for covering all of those expenses not classified as cost of goods. The so-called cost of goods becomes a periodic allocation as the goods are sold. The buyer's expenses become periodic allocations as they accrue. Although there

are many areas in accounting in which the goods conventionally would include the purchasing costs as part of the cost of inventory it also is true that such an allocation product-wise in the retail industry would be an arbitrary one which would obscure the periodic nature of this expense. Greater reliability is presumed to occur by the allocation of this cost over time on a strict accrual basis.[1]

Another argument in favor of direct costing is that it enables the analysis of costs according to lines of responsibility for them. This is an important element in cost analysis to which direct costing gives formal expression.

An additional argument sometimes advanced in favor of direct costing is that it yields a low inventory valuation. The writer is not impressed with this argument. However, a counter argument against direct costing is also based on the same contention, although with a somewhat different emphasis. It is contended that the inventory valuation which results from direct costing is not a good one since it does not include the overhead costs to round out that trinity of costs which is so familiar to accountants. This argument ignores a number of considerations. In the first place it assumes that there is proper reflection of this triad of costs even though valuation of inventory may be expressed, for example, on such bases as the lower of cost or market, last-in-first-out cost, and sometimes, even base stock cost. None of these valuations is indicative of the extent to which inventories represent working capital of the firm. These inventory expressions are by-products of income expression and do not reflect any intent to give a proper expression of the value of inventories. Any propriety which these valuations possess in the minds of those familiar with them is a derived propriety which emanates from the accountant's emphasis on income expression. A suitable expression of inventory value would be one indicating the contribution to the aggregate of working capital. Specifically, such a valuation would be at its net realizable value, such as the accountant has already accepted for obsolete goods.

Other arguments in favor of direct costing revolve around the simplicity of its computation. Simplicity cannot be construed as a sole reason for adopting any accounting approach but, at the same time, it is not to be ignored in view of the costliness of performing the accounting function. Data must be related to the cost of furnishing them. Because of the ease of its computation direct costing helps expedite preparation of reports. It simplifies insuring on a reporting basis, since the merchandising margin can be covered by business interruption insurance. The auditing of governmental contracts as well as the general audit by the independent public accountant is simplified by elimination of the necessity for reviewing intricate allocations of manufacturing expense.

The effect on the profits of the firm need not necessarily differ from what they would be on a total costing basis. Sometimes the disparity of net income expression under direct and total costing is overemphasized. In the first place, the faster the turnover of inventory the less does the disparity tend to be. Likewise, assume a constant flow of goods at a relatively constant level of cost of operation. The net income figures would be the same under both methods of computation, with the ease of figuring being an element in favor of direct costing.

Similarly, the lower the factory overhead the less significant is the difference between direct and total costing.

[1] The writer is indebted to his colleague, Professor David E. Faville for his appraisal of this reference to merchandising experience.

SUMMARY

The major arguments in favor of direct costing are (1) it imposes a more realistic approach to the analysis of joint costs, (2) it permits the allocation of costs on a temporal basis if temporal significance outweighs product significance, (3) it enables the allocation of costs according to lines of responsibility for them, and (4) it possesses a number of advantages which stem from its simplification of computation. Finally, direct costing shifts the reflection of costs in the formal records from the expression of a relatively useless inventory valuation to the analysis of costs according to their applicability to periods or lines of activity.

DIRECT COSTING—THE CASE AGAINST

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IN THE preceding article the cost accounting concept commonly referred to as direct costing was explained and defended as a rational and desirable alteration of presently accepted product costing procedure. It is the objective of the discussion which follows to demonstrate that direct costing does not represent a logically defensible modification of traditional cost accounting methods.

At the risk of repeating a part of the discussion contained in the preceding article, it is appropriate at this point to review briefly the meaning of the term direct costing to forestall any doubt as to the manner in which the term is being employed. This is particularly necessary since the relative newness of the concept has not allowed any "generally accepted" definition to emerge. In the discussion which follows, the term direct costing will be presumed to imply a concept of manufacturing cost accounting under which only costs which are a consequence of the production of the product are assigned to the product, with all costs associated with the providing of plant capacity to produce the product being considered as expenses of the period in which incurred. This may be described more briefly as a technique whereby the cost of product is restricted to the inclusion of *variable* manufacturing costs with *fixed* manufacturing costs being considered as period expenses. It must be noted that this is not the same as a concept which regards only direct or prime costs as product costs, all overhead or burden being treated as expense when incurred. Rather the use of direct costing as the term is used in this discussion would result in the inclusion of the cost of direct material, direct labor, *and* all overhead of a variable type in the costs of manufactured product. It will be noted that the term *direct* costing is not a completely satisfactory one in terms of being reasonably descriptive of the underlying concept.

In this article it will be assumed that the use of direct costing means its full fledged incorporation into the accounting process in terms of its effect on the determination of periodic net income and financial position. It is certainly not the intention of the writer to deny the fundamental importance of full recognition by management of the cost structure with which it is confronted in terms of the behavior of costs in the face of changes in volume or plant activity. However, this recognition can be made more fruitful for managerial purposes in the form of analysis and investigation supplementary to the accounting records, rather than by giving effect to it by a modification of accounting concepts. This type of analysis does not seem to fall within the meaning generally implied by the term direct costing.

After this brief examination of the meaning of the concept of direct costing, it is appropriate to turn to an examination of the consequences of its incorporation into the accounting process.

IMPLICATIONS OF THE USE OF DIRECT COSTING

It is convenient to examine the effects of the use of direct costing by evaluating the advantages which are claimed by its proponents to result from its use. Unless these advantages can stand the test of careful scrutiny and analysis it is necessary to conclude that the concept does not represent a satisfactory modification of presently employed product costing methods.

SIMPLICITY

One of the most appealing results of the use of direct costing, particularly to the harassed and overworked cost accountant, is the elimination of all necessity of making any attempt to allocate fixed overhead costs, both initially to service and production departments and ultimately to units of product or jobs. Admittedly, simplicity in cost accounting methods with the attendant reduction in the cost of cost accounting represents a desirable objective, but only if the information produced by the simplified methods is not substantially less useful for internal managerial use as well as for use in reporting the operating results and financial position. If simplicity alone is the ultimate goal, the logical conclusion is to dispense with all attempts to determine product cost. It seems unlikely that the cost accounting segment of the accounting profession would desire to scuttle the results of a half century of progress purely in the interests of increased simplicity. It is abundantly true that manufacturing operations create many situations requiring cost allocations which are at best somewhat arbitrary. However, the most logical tack would seem to be to seek to achieve the most rational solution rather than to eliminate the problem. The existence of a wide range of possibilities as to the best estimate of the service life of a long lived asset, as well as the best procedure of spreading its cost over this service life has not given rise to any widespread campaign advocating the abandonment of depreciation accounting as the solution to the problem.

In addition, it must be recognized that the adoption of direct costing does not, like the proverbial new broom, sweep away the necessity for all cost allocations. There will still remain within the area of product costs many elements which are not directly assignable to units of product. Raw material and labor costs incurred before the split off of two or more joint products as well as numerous variable overhead costs still require allocation on the most logically defensible basis.

While simplification of the cost accounting process is appealing, it is vitally necessary to resist adopting any procedure purely on the grounds of simplicity. In the paragraphs which follow, it will be demonstrated that such simplicity as does emerge from the use of direct costing is achieved only at the expense of substantial distortion of the normal objectives of the accounting process.

CONSERVATIVE INVENTORY VALUATION

Probably the least defensible argument advanced in support of the use of direct costing is that relating to the impact of this concept on inventory pricing. While it is quite true that the exclusion of fixed manufacturing charges from product cost will result in lower inventory values than would be produced by the application of full costing methods, it is difficult to see how the more or less arbitrary reduction in the value at which an asset element is stated in the accounts represents a desirable objective useful in supporting the use of an accounting method giving rise to this result. In essence, the adoption of direct costing involves advocating a rather fundamental change in basic accounting concepts in order to provide information of a specialized type, namely the data required by management to reach intelligent solutions to specific pricing and output problems. As one writer has stated in reference to direct costing, ". . . it is perhaps the best example of a confusion between what is desirable cost information for certain purposes of management and what is acceptable cost bookkeeping."[1]

It is a reasonably well recognized ac-

[1] Herbert F. Taggart, "Cost Accounting versus Cost Bookkeeping," The Accounting Review, April, 1951, p. 144.

counting principle that current assets should be valued, for the purpose of setting forth financial position, at an amount bearing a reasonably close relationship to the expected realizable value of such assets. In the case of inventories this would be the anticipated selling price reduced by the expected costs related to the completion and disposition of the goods in question. Also if we desire, as is generally true at the present time, to delay the recognition of profit until the period of sale a further deduction for the "normal" profit would be necessary. It will be observed that in a merchandising enterprise, not confronted by the problems of costing work in process and finished product, original cost represents a reasonable approximation to the net realizable value as outlined above. The reduction of original cost to a lower replacement cost is presumably motivated by the feeling that a decline in replacement cost will be accompanied by a fall in net realizable value. Extensive thought is not required to visualize how inventory values produced by the use of direct costing fit into the valuation criteria discussed above. The elimination of fixed manufacturing costs from product cost will result in the pricing of inventories for financial statement purposes at amounts which bear no identifiable relationship with realizable value, at least in the case of a concern which is going to continue to operate successfully. It is interesting to note that the use of the *Lifo* concept of the flow of cost factors produces the same undesirable results.

In summary, it does not seem to be desirable to alter fundamental accounting methods in order to cause the accounting record to produce special purpose data. Rather, as will be explored more fully in the next section of this article, such data should be made available for managerial use as a result of analysis which is supplementary to the normal cost bookkeeping process. In this way the achieving of the generally recognized objectives of the accounting process of realistically reporting financial position and operating results will not be irreparably crippled.

DATA FOR THE FORMATION OF MANAGERIAL POLICY

The strongest case can be made in favor of the use of direct costing in terms of the production of information useful to management in making decisions as to price and output policy. Hence, it is particularly important to examine carefully the implications of the concept in this connection.

Direct costing is, in essence, an application at the accounting level of the traditional marginal analysis so familiar to all students of economic theory. In brief, the marginal analysis concludes that, for the individual firm, the profit maximizing output (and price, where competitive conditions give the firm control over price) in the short run is that output where marginal cost is equal to marginal revenue. In less technical terms this may be stated as the level of output where the incremental unit cost (which is traditionally presumed to increase as output increases) is equal to the price per unit which may be obtained for that ouput. An excellent presentation of the marginal analysis under various competitive situations may be found in an article by Professor Leonard A. Doyle in the February 1, 1949 issue of the *N.A.C.A. Bulletin*.[2] It will be noted that the marginal analysis as an explanation of short period price and output policy is concerned exclusively with the behavior of marginal or incremental cost of production. As mentioned in the introductory section of this article this is precisely the objective of the direct costing concept. It is therefore appropriate to examine the accuracy of the

[2] Leonard A. Doyle, "Most Profitable Product Volume—Taking Account of Costs and Competition," *N.A.C.A. Bulletin*, Vol. XXX, No. 11, pp. 643–652.

marginal analysis as an explanation of the behavior of the firm as a part of the evaluation of direct costing.

While there is no room for argument as to the validity of the conclusions reached by the marginal analysis in terms of abstract logic, there is substantial difference of opinion as to the realism of the assumptions on which it is based and as to the usefulness in actual business situations of the conclusions which may be drawn from its application. In fact one of the most popular activities of economic theorists in the last decade has been to question the validity of the marginal analysis as a satisfactory explanation of the behavior of the firm, and to offer alternative theories in this connection. Space does not permit a detailed discussion of the available literature on this subject, but the reader is referred to Professor Robert A. Gordon's article in the *American Economic Review* for a comprehensive analysis of the matter.[3] It is essential, however, to comment on several of the fundamental characteristics of the marginal analysis as a part of the evaluation of its accounting offspring, direct costing.

In the first place, it is essential to emphasize that the marginal analysis with the resulting conclusions as to price and output policy is a short term analysis, with the result that its conclusions are valid only in the short run. By short run, the economist normally means a period of time of such duration as not to permit any change in the fixed plant employed by a business enterprise. It is obvious that over an extended period of time a manufacturing firm which prices its product or products giving recognition only to the unit variable cost of production will gradually consume its investment in long lived assets and cease to exist as a going concern. In the long run it is essential that aggregate revenue equal or exceed total costs of production, selling, and administration, if nominal dollar capital is to be maintained intact (ignoring for the purposes of this discussion the additional problem of maintaining real capital in the face of an advance in the general level of prices). It follows that while the focusing of attention on variable or differential cost is essential in the course of making special short run decisions, such as whether or not to accept an order for a batch of product which can be produced by using otherwise idle capacity, the ignoring of fixed costs can be a very dangerous procedure in the formation of long run price policy.

A second objection to full fledged application of the marginal principle may be raised on the grounds of questionable validity of the fundamental assumption which underlies it, namely, that the only, or at least the principal, motive which influences the policies of the firm is the maximization of profits. While it is undoubtedly true that the policies of the firm are influenced by the desire to maximize the excess of revenues over costs and expenses, there is increasing evidence that the desire to assure the continued existence of the firm coupled with "satisfactory" or "reasonable" profits is probably a stronger motivating force than the desire to maximize profits in the short run. In addition, there seems to be reason to believe that the policies of the firm regarding price and output may be influenced to a substantial degree by a desire to maintain a certain degree of liquidity in asset structure. Certainly no one would argue that the automobile manufacturers based their price policy in the immediate post World War II period on a desire to maximize short run profits. If short run profit maximization is not the fundamental motive molding the price and output policies of a firm, it follows that the marginal analysis falls short of being a satisfactori-

[3] Robert A. Gordon, "Short Period Price Determination," *American Economic Review*, June, 1948, pp. 265–288.

ly complete explanation of firm behavior.

An interesting implication of the direct costing concept in terms of providing the raw material for the formation of managerial policy relates to the treatment of nonmanufacturing costs, e.g., selling and administrative expenses. If the marginal principle is to be given full recognition in the accounting procedures, the appropriate dividing line between product and period costs would be the fixity or variability of costs regardless of their relation to manufacturing. In other words, it would be essential to include in product costs all costs which are caused by the fact that the firm was operating and to charge to the accounting period in which they are incurred all costs which would be incurred in the absence of activity. This would mean that variable selling and administrative expenses should be included in cost of production and hence in inventory values. As a matter of fact, the writer would tend to look with favor on some broadening of the area of costs which may be "legitimately" included in the computation of inventory values, but it is rather doubtful if even the most enthusiastic proponents of direct costing would approve of the inclusion in production cost of selling and administrative charges, even of a variable type. Only if this is done can it be said that the full value of the use of the marginal principle is being obtained.

Another problem related to the actual application of the direct costing concept pertains to the decision as to which costs are fixed and hence should be treated as period expenses and which are variable and accordingly should be included in product cost. The fixity or variability of a particular element of cost is not an inherent characteristic of the item in question, but rather of the period of time considered in reaching the conclusion. Thus in a very short period such as a day, many costs, for example direct labor, are fixed which in a longer period are variable, and, in the opposite direction over a period of several years all costs are variable at the discretion of management. It is likely that the annual accounting period is the usual criterion as to fixity or variability, and it is extremely doubtful if this is the proper period for the purpose of producing information for price and output policy.

An advantage often claimed for direct costing is that it focuses attention on the variable cost factors which are by their nature more subject to managerial control than those costs typically described as fixed. While it is perfectly true that management control is most important in connection with variable costs, it is difficult to see that direct costing offers more in this connection than a well organized system of standards for direct material, direct labor, and variable overhead. It hardly appears necessary to alter a basic concept as to what constitutes the cost of manufacturing a product in order to focus attention on the so-called controllable costs.

Perhaps the major danger in employing the results of the use of direct costing in the formation of future price and output policies relates to the timeliness of the cost information produced. It seems essential to recognize that the appropriate costs to consider in the formation of policies affecting future actions are expected future costs and not the recorded historical costs of past periods. This means that policy decisions should be based upon the results of analytical activity supplementary to the historical accounting records. In essence this would involve the typical budgetary procedure of employing the historical records as a starting point and introducing appropriate modifications to give effect to expected future changes in types and levels of costs. This should not represent a tremendous addition to the work of the cost accountant (or cost analyst) since it would presumably be only a periodic activity as

contrasted to the day to day cost bookkeeping routine, since price and output policies are not subject to daily revision. In any event it would seem to be preferable to incur the additional cost of analytical activities using the data produced by the cost accounting records as raw material, rather than attempting to rely on the unmodified product of the records as the basis for decisions which would likely prove to be unwise.

SUMMARY AND CONCLUSIONS

It is essential to emphasize that the arguments presented on the preceding pages are not intended to minimize in any way the vital importance of managerial awareness of cost structure in terms of the behavior of costs in the face of changes in plant activity. Intelligent decisions on many business problems, such as the acceptance or rejection of a particular order or the discontinuance of a product or territory, can be reached only by considering the consequences of the decision in terms of its marginal cost aspects. It does not seem necessary, however, to alter fundamental accounting concepts in terms of the reporting of financial position and operating results, to make management marginal cost conscious. In fact, as has been pointed out, there are distinct dangers in attempting to force the cost bookkeeping system to provide appropriate raw material in an unmodified form, for the purpose of managerial decision making. If management is so naive as to require recognition of the marginal concept in the accounts to insure awareness of its implications, the dangers of excessive reliance on the results of its application are apparent. It is appropriate that special decisions should be based upon specialized data prepared for the specific purpose, with the fundamental accounting or bookkeeping concepts being evaluated in terms of the basic objectives of the accounting process.

SECTION 102

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WITH THE PASSAGE of the original Internal Revenue Code in 1913, the Congress recognized that it would be possible for individuals to avoid a large portion of the contemplated personal income taxes by forming a corporation and allowing the earnings to accumulate within the corporation. At that time, the corporate income tax was nominal and so long as the earnings were not declared as dividends, the stockholders could effectively avoid most of the tax. This prompted the inclusion of Section II-A (2) in the act of 1913, which placed a penalty upon the stockholders if it was determined that the corporate form of organization was being used to avoid surtaxes. Since 1913, the major development in the Section has been the change in penalty from one imposed upon the stockholders to imposition upon the corporation. From time to time, there have been minor changes in the wording of the act, the number of the section, and the penalty percentages to be applied. None of these has caused any great change and the current Section 102, therefore, gives the basic ideas of the section from its inception.

Section 102 of the Internal Revenue Code of 1952 reads, in part as follows:

"there shall be levied, collected, and paid for each taxable year (in addition to other taxes imposed by this chapter) upon the net income of every corporation (other than a personal holding company as defined in Supplement P) if such corporation, however created or organized, is formed or availed of for the purpose of preventing the imposition of the surtax upon its shareholders or the shareholders of any other corporation, through the medium of permitting earnings or profits to accumulate instead of being divided or distributed, a surtax equal to the sum of the following:

27½ per centum of the amount of the undistributed section 102 net income not in excess of $100,000, plus

38½ per centum of the amount of the undistributed section 102 net income in excess of $100,000."

In addition to the code, section 29. 102–3 of the Income Tax Regulations pertains to Section 102 and defines "Unreasonable Accumulation of Profits" as follows:

"An accumulation of earnings or profits (including the undistributed earnings or profits of prior years) is unreasonable if it is not required for the purposes of the business, considering all the circumstances of the case. It is not intended, however, to prevent accumulations of the surplus for the reasonable needs of the business if the purpose is not to prevent the imposition of the surtax. No attempt is here made to enumerate all the ways in which earnings may be accumulated for the reasonable needs of the business. Undistributed income is properly accumulated if retained for working capital needed by the business; or if invested in additions to plant reasonably required by the business; or if in accordance with contract obligations placed to the credit of a sinking fund for the purpose of retiring bonds issued by the corporation. The nature of the investment of earnings or profits is immaterial if they are not in fact needed in the business. Among other things, the nature of the business, the financial condition of the corporation at the close of the taxable year, and the use of the undistributed earnings or profits will be considered in determining the reasonableness of the accumulations.

"The business of a corporation is not merely that which it has previously carried on, but includes in general any line of business which it may undertake. However a radical change of business when a considerable surplus has been accumulated may afford evidence of a purpose to avoid surtax. If one corporation owns the stock of another corporation in the same or a related line of business and in effect operates the other corporation, the business of the latter may be considered in substance although not in legal form the business of the first corporation. Earnings

or profits of the first corporation put into the second through the purchase of stock or otherwise may, therefore, if a subsidiary relationship is established, constitute employment of the income of its own business. Investment by a corporation of its income in stock and securities of another corporation is not of itself to be regarded as employment of the income in its business. The business of one corporation may not be regarded as including the business of another unless the other corporation is a mere instrumentality of the first; to establish this it is ordinarily essential that the first corporation own all or substantially all of the stock of the second.

"The Commissioner, or a collector upon direction from the Commissioner, may require any corporation to furnish a statement of its accumulated earnings and profits, the name and address of, and number of shares held by each of its shareholders, and the amounts that would be payable to each, if the income of the corporation were distributed."

Further hints of policy are gained by considering the Treasury Decisions which are to be used as guides by the commissioners. Treasury Decision 4914, issued in 1939, gave instructions to give close attention to several classes of firms to determine the applicability of Section 102. Five classes of firms were mentioned as follows: 1) those which have not distributed 70% of their earnings as taxable dividends, 2) those which have invested earnings in securities or other properties unrelated to their normal business, 3) those which have advanced funds to officers or shareholders in the form of loans out of undistributed profits from which taxable dividends might have been declared, 4) those whose stock is closely held, and 5) those which even though they have distributed 70%, or more, of their earnings still seem to have accumulated quick assets beyond the reasonable needs of the business.

Another Treasury Decision, 5398, issued in 1944, demanded that the commissioners make a specific recommendation regarding the application or non-application of the section.

One final historical development which many feared as an indication of a policy change came with the thought-provoking question on the 1946 corporate tax return asking if the corporation had distributed 70% of its 1946 earnings as dividends—yes or no! There appears to be nothing in the records since 1946 which would indicate that this was a change in attitude on the part of the Treasury.

An analysis has been made of the decisions which have been given by the Tax Court (formerly Board of Tax Appeals), including the memorandum decisions, and the cases which have found their way to District, Circuit and the Supreme Courts, in an attempt to decide how much of a worry Section 102 should be.

The majority of these cases have been held to be attempts to avoid taxation, and, in general, there seems to be little in the decisions which should cause the well-intending corporations any concern. The Trico case,[1] in which a manufacturing firm declaring more than 50% of its earnings as dividends was penalized heavily by the application of Section 102, is the exception rather than the rule. This case has caused much concern on the part of corporate management, particularly directors.[2]

The courts have taken the attitude that what is a reasonable retention of surplus is a question of fact to be determined in each case. This is a logical approach to a difficult problem; however, it automatically leads to a variety of interpretations by different courts and for this reason gives corporate officials little indication as to what might be considered reasonable in their particular case. There is no easy "rule of thumb" which can be grasped by the officials. As was pointed out in the California Motor Transport Company

[1] 46 BTA 346.

[2] *Economic Effects of Section 102*, Tax Institute Incorporated, Princeton, New Jersey, 1951, pp. 50, 107, 111, 117. See also, J. K. Lasser, R. S. Holzman. *Corporate Accumulations and Section 102*, Mathew Bender and Co., New York, 1949, pp. 201–222.

case,[3] "Corporations and their problems are as divergent as personalities; and slight shades of differences may serve to tip the scales one way or another." This means that the "reasonable needs of the business," referred to in the law, cannot be determined with certainty by the corporate officials.

The company officials must then search for practices which have met with court disapproval and endeavor to avoid them. For example, loans to stockholders have been regarded with suspicion by the courts. However, the courts have usually analyzed the attendant circumstances. In the case of the California Motor Transport Company[4] a loan was made to the principal stockholder to facilitate the purchase of corporation equipment. Since the purchase was accomplished more quickly this way, it was considered adequate reason to warrant the loan. In the cases of Charleston Lumber Company[5] and the Coca-Cola Bottling Works[6] the loans were considered as *bona fide* investments and as temporary distress loans, respectively, and as such did not harm the firms' positions.

The loans need not take the form of cash advances to the stockholder. In the case of the McCutchin Drilling Company[7] the corporation carried out a considerable volume of drilling for the personal benefit of the sole stockholder for which it received no cash payment. This was considered as a loan and was a factor in the imposition of Section 102 liability.

Another corporate act regarded with suspicion is the investment of funds in unrelated businesses. The general attitude expressed by the courts is that if the firm is attempting to prove a reasonable need for the funds in the business, it is inconsistent to have unrelated investments. Time after time the courts have expressed the opinion that the investment might just as well have been accomplished, except for the tax bite, by a declaration of dividends to the stockholder and a subsequent reinvestment by him. This, of course, would be true of each dollar of earnings retained and reinvested by the firm for any purpose. As a result, this seems to lead to inconsistencies for firms which decide to diversify into other lines of activity. A firm trying to buy the stock of another company for the purpose of eventually securing control could conceivably become liable under Section 102 until it had secured a controlling interest. It is difficult to draw any real distinction between this case and that in which a firm buys a building or other type of plant asset for the purpose of developing another line of business, which has generally met with less court disapproval.

This attitude presents a dilemma regarding the use to be made of temporarily excess cash funds. It is a well recognized fact that cash funds do not provide a return and that there is a compulsion to invest these funds until use is made of them. What can be done with these funds without drawing suspicion? To hold them in the form of cash is not an alternative since in at least one case[8] the court expressed bewilderment regarding the large amount of cash on hand. It was stated in the decision that since the cash returned nothing and was still retained, it must be taken as evidence of an attempt to avoid surtax.

In the case of the National Grocery Company,[9] the principal stockholder stated that he had invested funds, not immediately needed, in various types of securities which would provide a return and also be readily available in case cash was needed for expansion. This temporarily counteracted the suspicion attaching to unrelated investments in the Circuit Court

[3] PH BTA Memo 43 192.
[4] PH BTA Memo 43 192.
[5] 20 F Supp 83.
[6] 53 F Supp 967.
[7] 2 TC 1268.

[8] Twin City Theatres, Ph TC Memo 52 133.
[9] 52 F 2d 931.

of Appeals, but the decision was reversed by the Supreme Court at least in part on the basis of unrelated investments. These decisions of National Grocery Company cases are indicative of the problems presented to corporate officials who are attempting to evaluate the enforcement of Section 102. The Commissioner and Board of Tax Appeals decided against the firm, the Circuit Court reversed that decision, and the Supreme Court reversed the Circuit Court. Thus, even if the facts are the same, different decisions are likely to result, and in no two cases will the facts be identical.

The mere existence of a large surplus balance has also tended to draw suspicion. To a considerable extent this represents a weakness in reasoning on the part of court officials, and, therefore, the individual corporation could expect to do little to correct it. Perhaps one approach to a solution would be through a subdivision of the surplus into various reserve accounts which would draw a clearer line between what is actually current capital and that which is permanent capital. This should then force the courts to analyze the correct portion of the statement—the asset structure—in order to determine what is reasonable. In contrast, in some decisions great pains have been taken to analyze each of the working capital assets and the problems of budgeting. Notable from the budgeting standpoint is the case of the Metal Mouldings Corporation[10] in which the firm was not paid until the 25th and 27th by its two principal customers but was required to pay its own bills by the 10th of each month. The court recognized that this situation caused the firm to show a higher working capital position than normal. The reference to "nature of the business" in the Income Tax Regulations[11] is an indication of a desire to consider such factors. It may also be taken as an indication of a desire to consider business contingencies. The courts have not accepted *per se* the statement that the firm is subjected to contingencies, and the burden of proof is placed upon the firm.

Business expansion is another factor given consideration by the courts. If the contemplated expansion is reasonably related and possible of accomplishment, the courts have accepted it as a reason for accumulation. Problems pertaining to the possibility of expanding arose when the production of war material for World War II caused a scarcity of civilian materials. Some firms found that the best-laid plans had become impossible of completion and that, as a result, their financial positions looked particularly inviting to the commissioner.

In order to determine the sincerity of proposed expansion, the courts have taken the position that definite plans must exist which can be fulfilled in the near future. In Koma, Inc.,[12] the firm contended that it needed funds to expand a radio station for adaption to frequency modulation and television broadcasting. However, the court held that these developments were too remote and uncertain to warrant retaining funds in 1943, 1944, and 1945.

Time is a factor which helps in deciding whether or not the considerations of expansion are serious. Usually it takes several years for the cases to come before the courts which gives the courts an opportunity to determine the seriousness of the proposed expansion plan. Many cases have been decided against firms because there was no evidence of the expansion which had been offered as an excuse at an earlier date.

At the same time, this delay may give the firm a chance to carry out an expansion program which was offered as an ex-

[10] PH BTA Memo 43 087.
[11] See page 100.
[12] 189 F 2d 390.

cuse, particularly if the case is carried to a higher court. This does not prove that the expansion was not an excuse but tends to indicate that the firm considered it expedient to carry out the plan rather than to pay a penalty.

A slightly different situation in which time was an important factor is illustrated in the Dietze and Company, Inc.,[13] case. The company was engaged in foreign and domestic business. Its financial position was excellent. The president, in 1938, after a trip to Europe, decided that war was imminent and as a result declared less dividends in anticipation of difficulties to be encountered with the loss of foreign business. War came before the case was finally settled and the courts decided that the retention of earnings was reasonable.

The above discussion is an indication of the attitude of the courts, but it gives little indication of the behavior of firms. There are at least two important reasons for this; one, the cases analyzed, or more inclusively all cases closed under Section 102, have *directly* affected a very small fraction of the total firms; and two, when a firm is brought before the commissioner and the courts, it has been "caught" and attempts to use any excuse that will promise relief.

With regard to the relatively small number of cases, the Fact-Finding Panel of the Tax Institute has published information showing that to June 30, 1949, about 2,200 cases had been closed.[14]

The real effects of Section 102 are thus not to be found in the reasons given before the courts but in the actions which firms take in an attempt to avoid the liability. In most cases these actions may be totally unnecessary but are nevertheless taken by the firms. A firm which is unaware that the courts would give favorable consideration to some general contingencies may be concerned with the 70% dividend "talk" and declare at least a 70% dividend in order to "guarantee" their safety. This action may necessitate borrowing money or securing additional funds in other ways at some future date.

Firms may also attempt to avoid suspicion by making their financial position less attractive. Fundamentally this involves spending extra funds. Among the possibilities are: paying dividends, expanding plant facilities, modernizing plant facilities, retiring debt, expanding inventories, and expanding into a completely new product or line of products.

Some discussions of Section 102 imply that the reason businessmen fear it is because it accomplishes what it proposes to do. This would seem to be a doubtful conclusion in light of the other possibilities mentioned above. This does not necessarily mean that the enforcement of Section 102 is poor and ineffective but does mean that some evasive actions are available. If these actions are taken because Section 102 is a threat, there is a presumption that such steps would not have been taken as quickly were it not for the law. This leads to the possibility that these decisions are not always the result of good financial analysis. This type of action to avoid liability would have a tendency to hasten expansions. The offsetting effect is the extent to which firms, because they have paid larger dividends, are unable to expand because of a lack of sufficient funds.

In conclusion, most firms need not worry about Section 102 since they are not trying to avoid surtaxes for the stockholders and their financial positions are not exceedingly liquid. There are, however, some firms which are honestly not trying to avoid surtaxes for the stockholders but whose financial positions are extremely liquid. To assist in the protection of this type, reasonable care should be taken to indicate, in the accounts and by specific

[13] PH BTA Memo 42 597.

[14] *Economic Effects of Section 102*, Tax Institute Incorporated, Princeton, New Jersey, 1951, p. 93.

actions, that definite plans have been made to use the working capital funds, normal and excessive. This should include a complete budget analysis for the year. If an expansion program is contemplated, it should be made as definite as possible. This or any other reason which causes the working capital to be temporarily excessive should be adequately explained. The courts have recognized that the firms know their business better than the tax commissioners; thus, adequately supported intentions will serve favorably to impress the courts.

The above conclusions would apply equally to large and small firms. In the case of large firms, in which a substantial portion of the stock is not held by an individual or small group of individuals, it is difficult to prove that the failure to declare dividends was prompted by an attempt to avoid surtaxes. What constitutes a "substantial portion of the stock" for the purposes of Section 102 has never been clearly defined by the courts, but the cases would indicate it to be considerably less than 50% of the outstanding stock. In the case of the small firms, in which a substantial portion of the stock is held by an individual or small group of individuals, it should be realized that what appears to be a large retention of earnings to the management of the firm, because it is greatly in excess of the capital stock, or is a large percentage of the total current earnings, may, at the same time, appear to be relatively unimportant to the tax commissioners because the amounts involved may be small relative to the amounts being retained by the larger firms.

ADJUSTMENT OF FIXED ASSETS TO REFLECT PRICE LEVEL CHANGES

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THE EFFECT of inflation on accounting procedures, and in particular the determination of income, has elicited voluminous literature concerned with the general aspects of the problem. However, few practical attempts have been made to show by specific examples the effects of inflation on the books of account of a corporation and few concrete examples have been cited to offer a workable method for adjusting the accounts of record for price level changes.[1] Accountants, in general, have approached the problem with a measure of restraint caused by the confines of basic accounting principles; others have agreed to make the break from conventional accounting practices but have, for the most part, offered nothing more than theoretical considerations while admitting the need for experimentation with methods designed to reflect price level changes. The Committee on Concepts and Standards of the American Accounting Association recognized the need for experimentation in Supplementary Statement No. 2 where it recommended that "... the accounting effects of the changing value of the dollar should be made the subject of intensive research and experimentation; the specific significance of the basic problem should be determined with as much accuracy as possible; the means of the solution, if its significance warrants, should be thoroughly investigated."[2] This study, although by no means complete, represents an attempt to fulfill some of this need for research and experimentation.

The major emphasis of the problem of measuring real earnings as contrasted to book earnings has centered upon the accounting treatment of two types of assets, inventories and fixed assets. The following experimental case study, concerned only with fixed assets, presents a method and indicates the need for adjusting the historical cost of land and depreciable assets and their corresponding depreciation reserve for price level changes. The objective of the presentation is not only to effect a methodology but also to show the significant difference between cost measured in historical dollars and cost measured in units of purchasing power. While the methodology employed in making the ad-

[1] Among the more notable attempts made in this direction are the price level study of the Caterpillar Tractor Company (see Ralph O. Kennedy and Stewart Y. McMullen, *Financial Statements*, Homewood, Illinois, Richard D. Irwin, Inc., pp. 341–371), and Ralph C. Jones, "Effect of Inflation on Capital and Profits: Record of Nine Steel Companies," *Journal of Accountancy*, January, 1949, pp. 9–27. Both of these studies adjusted the accounts by using the data from the published financial statements. In the case of the Caterpillar Tractor study the adjustments were carried back to 1940; and in the Jones study the adjustments were carried back to the year 1941. The adjustment of fixed assets and the depreciation reserve in both studies was based on a first-in-first-out assumption since the acquisition dates of the assets were not known. This study differs in that the assets and the corresponding depreciation charges were adjusted by dates of acquisition from the beginning of the company's history to the year 1951. A somewhat similar method of adjustment of the estimated depreciation charges from a historical cost basis to a current cost basis was employed in the price level study of the Armstrong Cork Company (see Albert L. Bell, "Fixed Assets and Current Costs," ACCOUNTING REVIEW, January, 1953, pp. 44–53).

[2] Committee on Concepts and Standards Underlying Corporate Financial Statements "Price Level Changes and Financial Statements," THE ACCOUNTING REVIEW, October, 1951, pp. 468–474.

justments cannot be considered original,[3] the study does present a relatively simple step by step method, supported by exhibits, which will enable the reader to understand the type of adjustment required; in addition a suggested procedure is offered to provide a permanent record of the price level adjustments in the books of account without abandoning historical cost records.

The case study that follows is based upon approximately 70% of the fixed assets of the International Harvester Company as reflected in the company's accounts at the close of its fiscal year October 31, 1951.[4] The actual historical costs by acquisition dates of the fixed assets were obtained from the plant ledger of the firm.[5] The depreciation reserve, although not necessarily in agreement with the book figures of the corporation, represents the accumulated depreciation that would exist had the current depreciation rates been applied throughout the life of the company.

For the purpose of adjusting historical costs to purchasing power units, the Bureau of Labor Statistics Wholesale Commodity Price Index was employed. The use of this index has been suggested by the Committee on Concepts and Standards of the American Accounting Association "... as a reasonably accurate and objective instrument for adjusting original dollar costs to reflect changes in the value of the dollar."[6] The Committee further stated "... undoubtedly a better index can be developed, and will be as the need becomes apparent. In the meantime, the B.L.S. Index will serve reasonably well for experimental purposes; any degree of error introduced by its variation from the "ideal index" may be negligible as compared with the difference, given substantial price changes, between original costs and their current dollar equivalents."[7] The substantial difference between historical costs and costs adjusted for price level changes indicated in this study tend to substantiate this contention of the Committee.[8]

The procedure applied in adjusting the historical cost of the fixed assets to reflect price level changes was as follows. (See Schedules I and II.)

Step 1. The historical costs of the fixed assets as carried on the company's ledgers were arrayed by dates of acquisition in groups having the same depreciation rate.

Step 2. The depreciation reserve based on historical cost was computed by applying the appropriate depreciation rate to the historical cost of the assets at the date of acquisition.

Step 3. In order to adjust to 1951 dollars the historical cost of the assets at the date of acquisition and the corresponding depreciation reserves based on historical costs were divided by the price index in the year of acquisition and multiplied by the 1951 price index.

Schedule I illustrates the application of the above adjustment procedure to one class of assets, Building and Building Equipment. Schedule II presents a summary of the adjustments to all classes of fixed assets of the company. This schedule indicates the significant differences between historical costs and current costs as

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[3] Methods of adjusting the books of account by the use of index numbers have been prominently suggested since the appearance of Sweeney's *Stabilized Accounting* (Henry W. Sweeney, Stabilized Accounting, New York, Harper and Brothers, 1936).

[4] The assets of foreign subsidiaries, and domestic office buildings and office equipment were excluded from the study.

[5] The authors are grateful to the International Harvester Company for its cooperation in providing the data for this study and for permission to publish the results.

[6] *Op. cit.*, Accounting Review, p. 472.

[7] *Ibid.*

[8] It is not the purpose of this study to elaborate on the merits or weaknesses of a particular index number but rather to indicate a method of adjustment employing index numbers. The accounts are adjusted for "price level changes" in an effort to maintain the integrity of the firm's investment in terms of "real dollars" not to reflect replacement cost nor to attempt to maintain the firm's investment in certain physical assets; therefore, an index that tends to measure general purchasing power is employed rather than a special purpose index such as an index of construction costs, etc.

SCHEDULE I

BUILDING AND BUILDING EQUIPMENT
(in millions)

Year	*Acquisition at Historical Cost (Step 1)*	*Adjusted Cost (Step 3)*	*Depreciation Rate 2.5 per cent*	*Depreciation Charge Based on Historical Cost (Step 2)*	*Adjusted Depreciation Charge (Step 3)*
1902.....	$ 5.3	$ 16.2	100.00%	$ 5.3	$16.2
1903.....	.3	.9	100.00	.3	.9
1904.....	.1	.3	100.00	.1	.3
1905.....	.2	.6	100.00	.2	.6
1906.....	.1	.3	100.00	.1	.3
1907.....	.2	.6	100.00	.2	.6
1908.....	.1	.3	100.00	.1	.3
1909.....	.1	.3	100.00	.1	.3
1910.....	.9	2.3	100.00	.9	2.3
1911.....	.8	2.3	100.00	.8	2.2
1912.....	.2	.5	98.75	.2	4.9
1913.....	.7	1.8	96.25	.67	1.73
1914.....	.1	.3	93.75	.09	.28
1915.....	.1	.3	91.25	.09	.27
1916.....	.1	.2	88.75	.09	.18
1917.....	.6	.9	86.25	.52	.78
1918.....	.6	.8	83.75	.50	.67
1919.....	1.3	1.7	81.25	1.06	1.38
1920.....	1.7	2.0	78.75	1.34	1.58
1921.....	.2	.4	76.25	.15	.31
1922.....	.3	.6	73.75	.22	.44
1923.....	1.6	2.9	71.25	.14	2.07
1924.....	.6	1.1	68.75	.41	.76
1925.....	.6	1.0	66.25	.40	.66
1926.....	1.4	2.5	63.75	.89	.159
1927.....	1.4	2.6	61.25	.86	.159
1928.....	2.3	4.3	58.75	.135	.253
1929.....	4.4	8.3	56.25	.248	4.67
1930.....	1.0	2.1	53.75	.54	1.13
1931.....	.1	.2	51.25	.05	.10
1932.....			48.75		
1933.....	.2	.5	46.25	.09	.23
1934.....	.2	.5	43.75	.09	.22
1935.....	.6	1.4	41.25	.25	.58
1936.....	1.7	3.8	38.75	.66	.147
1937.....	2.4	5.0	36.25	.87	.181
1938.....	3.8	8.7	33.75	.128	2.94
1939.....	1.0	2.3	31.25	.31	.72
1940.....	1.6	3.7	28.75	.46	1.06
1941.....	.5	1.0	26.25	.13	.26
1942.....	.2	.4	23.75	.05	.10
1943.....			21.25		
1944.....	1.9	3.3	18.75	.36	.62
1945.....	.5	.9	16.25	.08	.15
1946.....	21.1	31.4	13.75	2.90	4.32
1947.....	12.0	14.2	11.25	1.35	1.60
1948.....	11.2	12.2	8.75	.98	1.07
1949.....	6.3	7.3	6.25	.39	.46
1950.....	3.7	4.1	3.75	.14	.15
1951	9.5	9.5	1.25	.12	.12
Total..	$105.8	$168.7		$26.07	$55.41

determined by the application of a price level index.

EFFECT OF PRICE LEVEL CHANGE FOR A SINGLE YEAR

The procedure as stated in Steps 1 through 3 and illustrated in Schedules I and II, relates to the accumulated understatement of asset values and depreciation charges due to changes in the price level for the entire period 1902–1951. It does not, however, indicate the effect of a price level change on asset values and depreciation charges for any specific year. In order to show the effect of a price level change in a single year it is necessary to separate the increase in asset values and the increase in the depreciation charges due to a change in the price level in a particular year from the accumulated increase in asset values and depreciation charges due to changes in the price level for the entire period of 1902–1951. The following example indicates the procedure necessary to make this adjustment. For purposes of illustration the increase in asset values and depreciation charges due to price level changes is computed for the year 1951. The results of the application of steps A through C to the adjusted accounts is illustrated in Schedule III. The second column in this schedule is provided as a check to enable the reader to distinguish between the total adjustments made to the accounts to state the assets and the depreciation reserve in 1951 dollars and the proportion of this total adjustment that was due to the change in the price level for the single year 1951.

Step A. The 1951 acquisitions (which are in terms of 1951 average dollars) were subtracted from the adjusted 1951 gross assets. The remaining figure represents the 1950 asset balance in terms of 1951 dollars, provided there has been no asset retirements during the year 1951.

Step B. To state the 1950 gross asset balance in terms of 1950 dollars the 1950 balance was divided by the 1951 price index and multiplied by the 1950 price index. The difference between the adjusted 1950 balance, as measured in terms of 1951 dollars, and the 1950 balance, measured in terms of 1950 dollars, represents the increase in gross assets for the year 1951 due to the change in the purchasing power of the dollar.

Step. C. The adjusted depreciation charge for the year 1951, calculated by applying the appropriate depreciation rates to the historical cost of the assets and dividing the resulting figure by the price index at the date of acquisition of the assets and multiplying by the 1951 price index, was subtracted from the 1951 depreciation reserve. The remaining balance represents the 1950 depreciation reserve stated in terms of 1951 dollars, pro-

Schedule II

Summary of Adjustments to Reflect Changes in Price Level
(in millions)

	Depr. Rate (per cent)	*Historical Cost*	*Depreciation Reserve Based on Historical Cost*	*Book Value Based on Historical Cost*
Land Improvements	3.0	$ 10.0	$ 8.3	$ 1.7
Building & Bldg. Equip.	2.5	105.8	26.1	79.7
Machinery—Automobiles	20.0	.6	.4	.2
Machinery—other (mach., tools, etc.)	5.0	66.4	64.1	102.3
Auxiliary Equipment—Tagged	6.0	5.0	1.4	3.6
Auxiliary Equipment—Untagged	10.0	15.1	6.6	8.5
Office Furniture	6.6	3.5	.9	2.6
Tools & Patterns	15.0	57.7	35.0	22.7
Total Depr. Fixed Assets		$364.1	$142.8	$221.3
Land		3.8		3.8
Total Fixed Assets		$367.9	$142.8	$225.1

	Adjusted Cost	*Depreciation Reserve Based on Adjusted Cost*	*Book Value Based on Adjusted Cost*
Land Improvements	$ 15.7	$ 13.8	$ 1.9
Building & Bldg. Equip.	168.7	55.4	113.3
Machinery—Automobiles	.7	.5	.2
Machinery—other (mach., tools, etc.)	251.3	116.3	135.0
Auxiliary Equipment—Tagged	6.6	2.2	4.4
Auxiliary Equipment—Untagged	19.3	8.8	10.5
Office Furniture	4.3	1.2	3.1
Tools & Patterns	75.7	50.2	25.5
Total Depr. Fixed Assets	$542.3	$248.4	$293.9
Land	6.9		6.9
Total Fixed Assets	$549.2	$248.4	$300.8

Difference Between Historical Cost and Adjusted Cost

	Cost	*Depreciation Reserve*	*Book Value*
Land Improvements	$ 5.7	$ 5.5	$ .2
Building & Bldg. Equip.	62.9	29.3	33.6
Machinery—Automobiles	.1	.1	
Machinery—other (mach., tools, etc.)	84.9	52.2	32.7
Auxiliary Equipment—Tagged	1.6	.8	.8
Auxiliary Equipment—Untagged	4.2	2.2	2.0
Office Furniture	.8	.3	.5
Tools & Patterns	18.0	15.2	2.8
Total Depr. Fixed Assets	$178.2	$105.6	$ 72.6
Land	3.1		3.1
Total Fixed Assets	$181.3	$105.6	$ 75.7

vided there has been no asset retirements during 1951.

Step D. To state the 1950 depreciation reserve in terms of 1950 dollars, the 1950 balance was divided by the 1951 price index and multiplied by the 1950 price index. The difference between the adjusted 1950 reserve balance, as measured in terms of 1951 dollars, and the adjusted 1950 reserve balance, measured in terms of 1950 dollars, represents the increase in the depreciation reserve for the year 1951 due to the change in the purchasing power of the dollar.

Schedule III

Adjustments for Change in Price Level
(October 31, 1950 to October 31, 1951)

FIXED ASSETS

			Check
Assets on hand at 10/31/51 in terms of 1951 dollars		$549.2	$549.2
Adjustment required to convert historical costs to 1951 dollars			181.3
Assets on hand at 10/31/51 in terms of historical costs			$367.9
Assets acquired in 1951 (STEP A)		25.4	25.4
Assets on hand at 10/31/50 in terms of 1951 dollars		$523.8	
Adjustment necessary to convert assets on hand at 10/31/50 to 1950 dollars (STEP B)*		54.9	
Assets on hand October 31, 1950 in 1950 dollars		$468.9	
Adjustment necessary to convert assets on hand at October 31, 1950 to historical cost (Check)		126.4	
Assets on hand at 10/31/50 in terms of historical cost		$342.5	$342.5

RESERVE FOR DEPRECIATION

			Check
Adjusted depreciation reserve of assets on hand at 10/31/51 in terms of 1951 dollars		$248.4	$248.4
Total adjustment necessary to convert depreciation reserve based on historical cost to 1951 dollars			105.6
Reserve for depreciation at 10/31/51 based on historical cost			$142.8
Depreciation charge based on historical cost for assets on hand at 10/31/51	$21.2		
Adjustment necessary to historical cost depreciation charges to reflect 1951 dollars (STEP C)	9.5	30.7	
Adjusted depreciation reserve of assets on hand at 10/31/50 in terms of 1951 dollars		$217.7	
Adjustment necessary to convert to 1950 dollars (Increase in reserve due to change in price level 1950–1951) (STEP D)		23.1	
Adjusted depreciation reserve of assets on hand at 10/31/50 in 1950 dollars		$194.6	
Adjustment necessary to convert the reserve for depreciation on historical cost to 1950 dollars (Check)		73.0	
Reserve for depreciation at 10/31/50 based on historical cost		$121.6	$121.6

* This figure represents the increase in the dollar value of the assets due to the change in the price level 1950–1951.

RECORDING ADJUSTMENTS IN BOOKS OF ACCOUNT

One of the most important and controversial factors associated with adjustments for price level changes is the problem of how to reflect the adjustments in the books of account. It is essential to retain the historical cost records and at the same time to record the change in the accounts due to the fluctuating dollar. A procedure to accomplish this objective is illustrated in Schedule IV. This method combines the suggested procedure stated in Accounting Research Bulletin No. 5[9] with the employment of dual columns in the affected accounts in order to retain the historical cost records and at the same time to indicate the adjusted cost basis. The necessary entries to be made on the books of account, as illustrated in Schedule IV, are keyed to the following explanations and are related to Schedule III in order to indicate the increase in fixed assets due to price level changes that has entered the income account, by virtue of the depreciation charges, and the increase that has not been amortized and is reflected only in the asset accounts.[10]

[9] Accounting Research Bulletin No. 5 "Depreciation on Appreciation," April, 1940.

[10] Some writers refer to that part of the increase in fixed assets due to price level changes that has been

SCHEDULE IV

FIXED ASSETS (DEBIT)		*Historical Cost*	*Adjusted Cost*	*RESERVE FOR DEPRECIATION (CREDIT)*		*Historical Cost*	*Adjusted Cost*
10/31/50	Balance in hist. cost.....	$342.5	$342.5	10/31/50	Balance in hist. cost.....	$121.6	$121.6
(a)	Adjusted to 1950 dollars.		126.4	(b)	Adj. to 1950 dollars.....		73.0
10/31/50	Balance...............	$342.5	$468.9	10/31/50	Balance...............	$121.6	$194.6
(c)	Adjusted to 1951 dollars.		54.9	(d)	Adj. to 1951 dollars.....		23.1
	1951 Acquisitions.......	25.4	25.4	(e)	1951 depreciation.......	21.2	21.2
				(f)	Adj. to 1951 depr. to convert to 1951 dollars....		9.5
10/31/51	Balance..............	$367.9	$549.2	10/31/50	Balance..............	$142.8	$248.4

UNAMORTIZED PRICE LEVEL ADJUSTMENTS

		Adjusted Cost			*Adjusted Cost*
10/31/50 (b)	Adjusted depr. res. to 1950 dollars....................	$ 73.0	10/31/50 (a)	Adj. fixed assets to 1950 dollars....................	$126.4
10/31/51 (d)	Adjusted depr. res. at 10/31/50 to 1951 dollars........	23.1	10/31/51 (c)	Adj. fixed assets at 10/31/50 to 1951 dollars........	54.9
10/31/51 (h)	Adjusted 1951 depr. to 1951 dollars..................	9.5			

EARNED SURPLUS

		Historical Cost	*Adjusted Cost*			*Historical Cost*	*Adjusted Cost*
10/31/51	Depreciation for 1951(g).	$ 21.2	$ 30.7	10/31/51 (h)	Adj. 1951 depr. to 1951 dollars...........	—	$ 9.5

DEPRECIATION

		Historical Cost	*Adjusted Cost*			*Historical Cost*	*Adjusted Cost*
10/31/51	Depreciation of			10/31/51	To close (g)...........	$ 21.2	$ 30.7
(e)	the year 1951..........	$ 21.2	$ 21.2				
(f)	Adj. to 1951 dollars.....		9.5				
		$ 21.2	$ 30.7			$ 21.2	$ 30.7

(a) Adjustment necessary to state the historical cost of the fixed assets in terms of 1950 dollars. (Step B in Schedule III.)

The corresponding credit is recorded in the Unamortized Price Level Adjustment Account.

(b) Adjustment necessary to state the depreciation reserve based on historical costs in terms of 1950 dollars.

The corresponding debit is recorded in the Unamortized Price Level Adjustment Account.

(c) Adjustment necessary to convert the 1950 adjusted gross asset balance to 1951 dollars.

The corresponding credit is recorded in the Unamortized Price Level Adjustment Account.

The assets acquired in 1951 are shown

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amortized as the "realized increment" and the unamortized portion as the "unrealized increment"; this treatment does not accurately reflect the purpose of adjustments for price level changes. The adjustment is made because of the change in the price level and, therefore, the increase in the value of the asset has been realized in terms of current prices but merely has not been amortized.

separately; since they are stated in 1951 dollars no adjustment is required.

(d) Adjustment necessary to convert the 1950 adjusted depreciation reserve to 1951 dollars. (Step D, Schedule III.)

The corresponding debit is recorded in the Unamortized Price Level Adjustment Account.

(e) To record the 1951 depreciation charge based on historical cost for the assets on hand at the end of fiscal year October 31, 1951.

The corresponding credit is recorded in the Reserve for Depreciation Account.

(f) To record the adjustment to the 1951 depreciation charge, based on historical costs, to reflect 1951 dollars. (Step C in Schedule III.)

The corresponding credit is recorded in the Reserve for Depreciation Account.

(g) To close the 1951 depreciation charge to Earned Surplus.

(h) To transfer to Earned Surplus that portion of the price level increase in fixed assets that has been amortized by depreciation charges.

FINDINGS OF THE STUDY

This experimental survey of the fixed assets of one company indicates a very significant difference between the historical cost of the assets and the cost as adjusted to reflect price level changes. In the case reviewed the difference between the historical cost of the fixed assets and the cost adjusted to reflect price level changes for the period 1902–1951 amounted to $181.3 million, representing a 49.2% increase over the historical cost of the fixed assets at October 31, 1951. The corresponding adjustment of the depreciation reserve to reflect price level changes showed an understatement of depreciation charges of $105.6 million, representing an increase of 73.9% in the adjusted reserve for depreciation over the reserve for depreciation based on historical cost. The increase in the book value of the assets, which represents the net gain due to price level changes for the period 1902–1951, amounted to $75.7 million, an increase of 33.6% over the book value in terms of historical cost.

The increase in the value of the fixed assets resulting from changes in the price level for the period of October 31, 1950 to October 31, 1951 amounted to $54.9 million, an increase of 14.9% over historical cost at October 31, 1950. The corresponding increase in the reserve for depreciation for the period amounted to $23.1 million, representing an increase of 16.2% over the reserve for depreciation based on historical cost. The book value of the assets increased $31.8 million in this period representing a net gain of 14.1% over the book value based on historical cost. The adjusted depreciation charge for the year 1951 was $9.5 million greater, or 44.8% more than the depreciation charge based on historical cost. This understatement of depreciation charges amounted to 15% of the net profit figure after taxes of $63 million. Using a tax rate of 52% (ignoring the excess profits tax) the taxes paid on this unrealized income amounted to $4.9 million, approximately 8% of the reported net income figure.

The inflation in the period of 1950–1951 increased the Bureau of Labor Statistics Wholesale Commodity Price Index 20 points. The increase in the price level in this year accounts for approximately 30% of the total increase in fixed assets, 22% of the increase in the depreciation reserve and 42% of the increase in the book value of the assets, as adjusted for price level changes for the period 1902–1951.

In addition to these considerations some important inferences can be drawn from this study regarding business decisions which tend to contradict the assumptions often employed in other studies of price

level adjustments. There is a general belief that plant acquisitions and retirements take place at a relatively constant rate, and as a result the price level adjustments would be negligible at the mid-point in the business cycle because the adjustments for assets acquired at high price levels would be offset by the adjustments for the assets acquired at low price levels. An examination of the assets arrayed by acquisition dates, which were used in this study, would indicate that such an assumption is not true. During the period of low prices in the 1930's, acquisitions were made at a very low rate and, conversely, were made at an extremely high rate during the period of high prices in the 1920's and immediately following World War II. A better assumption, then, would seem to be that the rate of acquisition follows the price level, volume of sales, or some other factors found in periods of prosperity that inspire optimism and consequent replacement and expansion.

Another questionable assumption that has been used in making price level adjustments is that plant and equipment acquisitions and retirements take place on a first-in-first-out basis.[11] Although physical life is an important consideration, it is doubtful that such an assumption is valid when assets dating back to 1902 are found in the plant accounts.

Many have expressed the opinion that price level adjustment is not necessary in the case of firms that have purchased the bulk of their assets since World War II, because these assets are already expressed in terms of the current price level. Only if the assets have been purchased in the current year is such a statement true. The rapid rise in the price index in the last ten years and the weighting of this increase by heavy expenditures would necessitate sizeable adjustment. Reference to the automobile section of the assets used in this study bears this out. These assets have been purchased primarily in the last five years and yet a large adjustment is required. In the case of acquisitions of short-lived assets, the income account will be materially affected as a result of the adjustment of relatively large depreciation charges.

[11] See, *op. cit.*, Kennedy and McMullen, and, *op. cit.*, Ralph C. Jones.

A STUDY ON NET WORTH COMPARISON

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ONE reads frequently these days how the principle of net worth comparison is applied to determine the measurement of individual and partnership income over a period of years. This is particularly true in the case of investigators for the Bureau of Internal Revenue. With no evidence in the form of business papers, cash books, journals, and ledgers involving debits and credits, the measurement of income is arrived at in a general way by comparing the inventory of a person's assets and liabilities at one period with another, and by making a rough estimate of the change in living standards maintained by the party in question. (If a person's increase in net worth is not reasonably substantiated by the earnings reported in his income tax returns, he is asked to explain the apparent discrepancy.)

There is no reason to believe that this principle of net worth comparison cannot be applied to corporate organizations as well as to partnerships and individual proprietorships. The technique can be applied to corporation reports, since most annual reports contain a balance sheet comparison of the present-year figures with those of the previous year, and sometimes with those of several years in the past. Usually a statement of earned surplus or retained earnings is found in the corporation reports, or is included in the net worth section of the balance sheet.

PURPOSE OF STUDY

The purpose of this paper is to make an analysis of the change in net worth of a business organization, using as an example the 1952 Annual Report of the American Telephone and Telegraph Company. This analysis is not intended to be in the nature of a "statement of source and application of funds," a "statement of resources obtained or applied," or any other statement of similar function, since no working papers are necessary; neither is it necessary for one to examine the books in order to obtain information relative to changes in the fixed assets and depreciation reserve accounts, nor to make adjustments of transactions which affect the surplus account. All of the information required to conduct this study can be obtained from the annual reports of the companies, and no reference to the debit and credit elements of a business transaction during the period is necessary. It is simply a method by which the layman can seek to understand the significance of the additions and deductions of the balance sheet and surplus items (retained earnings), and by which he can arrive at a general analysis of the trend in changes of net worth and their disposition over a period of time.

CASE STUDY OF AN ANNUAL REPORT

The Consolidated Balance Sheet of the American Telephone and Telegraph Company and its Principal Telephone Subsidiaries for the year 1952 is shown in Exhibit I. The figures have been rounded off in millions of dollars, and liberty has been taken to condense some of the items in the statement for the purpose of simplifying this presentation. The Consolidated Balance Sheet contains only the information for December 31, 1951 and December 31, 1952; the column containing the dollar

EXHIBIT I

(American Telephone and Telegraph Company and its Principal Telephone Subsidiaries)
CONSOLIDATED BALANCE SHEET—YEAR 1952
(Rounded off in Millions of Dollars)

ASSETS	*December 31, 1952*	*December 31, 1951*	*Increase or Decrease**
Plant and Other Investments:			
Telephone Plant	$11,971	$10,950	$1,021
Less: Depreciation and Amortization Reserves	3,263	3,042	221
	$ 8,708	$ 7,908	$ 800
Miscellaneous Property and Investments	565	562	3
Total	$ 9,273	$ 8,470	$ 803
Current Assets:			
Cash and Other Cash Items	$ 793	$ 639	$ 154
Current Receivables	463	430	33
Materials and Supplies	128	118	10
Total Current Assets	$ 1,384	$ 1,187	$ 197
Deferred Charges:			
Total	$ 77	$ 75	$ 2
Total Assets	$10,734	$ 9,732	$1,002
LIABILITIES			
Capital Stock Equity:			
American Telephone and Telegraph Co.:			
Common Stock and Installments	$ 3,934	$ 3,384	$ 550
Premium on Common Stock	1,015	798	217
Retained Earnings (Exhibit II)	625	544	81
Subsidiaries Consolidated—Stocks Held by Public: Total	179	169	10
Total Capital Stock Equity	$ 5,753	$ 4,895	$ 858
Funded Debt:			
Total	$ 3,790	$ 3,707	$ 83
Current and Accrued Liabilities:			
Notes and Accounts Payable	$ 416	$ 429	$ 13*
Customers' Deposits, etc.	95	85	10
Dividends Payable	88	75	13
Other Current Liabilities	24	34	10*
Accrued Interest and Taxes	539	478	61
Total	$ 1,162	$ 1,101	$ 61
Deferred Credits:			
Total	$ 29	$ 29	$ —
Total Liabilities	$10,734	$ 9,732	$1,002

amounts of increases and decreases has been added in the exhibit.

This exhibit shows that the total assets increased $1,002 million, offset by a similar amount in the liability section. It should be noted that the liability section of this particular company contains both the net worth section and the liability section of the ordinary balance sheet, a characteristic of public utility accounting reporting.

The Statement of Consolidated Retained Earnings Applicable to American Telephone and Telegraph Company Stock for the year 1952, shown in Exhibit II, is also taken from the annual report of the

EXHIBIT II

(American Telephone and Telegraph Company and its Principal Telephone Subsidiaries)

STATEMENT OF CONSOLIDATED RETAINED EARNINGS APPLICABLE TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY STOCK—YEAR 1952
(Rounded off in Millions of Dollars)

Balance—December 31, 1951	$544
Net Income applicable to A.T. & T. Co. Stock	$407
Adjustments and Miscellaneous Additions	3
Total Additions	$410
Dividends on A.T. & T. Co. Stock	$320
Refunds to Customers—Net	1
Organization Expense Charged Off	3
Amortization and Miscellaneous Deduction	2
Transfer to Depreciation Reserve	1
Charge in Connection with Acquisitions	2
Total Deductions	$329
Balance—December 31, 1952 (Exhibit I)	$625

company. (In 1951 the company designated this statement as "consolidated unappropriated earned surplus" instead of "retained earnings.") Here it is noted that the balance of retained earnings for December 31, 1951 and December 31, 1952 are $544 and $625 million respectively, and are contained in the consolidated balance sheet figures found in Exhibit I. The difference indicates an increase in the amount of $81 million.

Comparative Statement of Net Worth and Net Assets

The next step in the analysis is to prepare a Comparative Statement of Net Worth and Net Assets for the year 1952 (Exhibit III). This statement is not new by any means, as for many years it has formed the basis for calculating income when accounting records are not maintained on the double-entry bookkeeping principle. The calculation of income by the comparison of net worth over different periods of time is supplemented, of course, by taking into consideration any additional investments made into the business and offset by the withdrawal of capital by the proprietor or partners.

The exhibit shows that the total additions to net worth amounts to $858 million. Since the liabilities increased $144 million, this figure is subtracted from the total additions to *assets* of $1,002 million in order to obtain the total additions to *net assets* of $858 million. It is found, therefore, that the increase in net assets (the difference between the assets and liabilities) is in agreement with the increase in net worth.

Sources of Additions to Net Worth

The purpose of the next statement (Exhibit IV) is to show the sources of additions to net worth and how the company disposed of these additions. The statement is not meant to be a source and application of funds in the accounting sense. The name of the statement may not imply its significance, but the idea is to present some kind of report to support the total additions to net worth of $858 million, and their general disposition. The only persons qualified to make a statement of application of funds or a statement showing increase in working capital from the accounting point of view would be the company itself and its auditors who have access to the ac-

Exhibit III

(American Telephone and Telegraph Company and its Principal Telephone Subsidiaries)

Comparative Statement of Net Worth and Net Assets—Year 1952
(Rounded off in Millions of Dollars)

Additions (Deductions*) to Net Worth:		
Retained Earnings:		
Net Income for the Year	$407	
Adjustments and Miscellaneous Additions	3	
Total Additions		$ 410
Dividends on A.T. & T. Stock	$320	
Refunds to Customers—Net	1	
Organization Expense Charged Off	3	
Amortization and Miscellaneous Deductions	2	
Transfer to Depreciation Reserve	1	
Charge in Connection with Acquisitions	2	
Total Deductions		329*
Increase in Retained Earnings		$ 81
Common Stock—American Telephone & Tel. Co.:		
Increase in Common Stock and Installments		550
Premium on Common Stock		217
Subsidiaries Consolidated—Stocks Held by Public:		
Increase in Minority Interest		10
Total Additions to Net Worth		$ 858
Additions (Deductions*) to Net Assets:		
Assets:		
Plant and Other Investments	$803	
Current Assets and Deferred Charges	199	
Total Additions to Assets		$1,002
Liabilities:		
Funded Debt	$ 83	
Current Liabilities and Deferred Credits	61	
Total Additions to Liabilities		144*
Total Additions to Net Assets		$ 858

counting records. This statement, therefore, might be considered one of financial analysis rather than one of accounting technique. Here it is presented as a study of the net worth changes during the year.

The first item shown as a source of addition to net worth in Exhibit IV is net income for the year in the amount of $407 million. Dividends paid or obligated to be paid during the year amounted to $320 million. The justification for subtracting the dividends from the net income is based on the theory that the stockholders understand that dividends are ordinarily paid out of the net profits or income. In this case the company reports that it will pay out to the stockholders over 78.6% of its earnings in the form of dividends. Other deductions consisting of the net amount of miscellaneous adjustments contained in retained earnings in the amount of $6 million reduced the total of retained earnings to $81 million for the net additions from this source in 1952. These adjustments were made up of such items as tax accruals for prior years, refunds to customers of amounts applicable to prior years, organization and capital stock expense charged off, amortization of telephone plant acquisition adjustment ac-

EXHIBIT IV

(American Telephone and Telegraph Company and its Principal Telephone Subsidiaries)

STATEMENT SHOWING SOURCES OF ADDITIONS TO NET WORTH AND HOW THE THE COMPANY DISPOSED OF THESE ADDITIONS—YEAR 1952
(Rounded off in Millions of Dollars)

Sources of Additions:	
Retained Earnings:	
Net Income for the Year	$ 407
Less Deductions:*	
Dividends Paid on A.T. & T. Stock	$ 320
Miscellaneous adjustments in Retained Earnings (Net decrease) Exhibit III	6
Total	$ 326*
Net Additions in Retained Earnings	$ 81
Common Stock—American Tel. & Tel. Co.:	
Common Stock and Installments	550
Premium on Common Stock	217
Subsidiaries Consolidated—Stocks Held by Public: Increase in Minority Interest	10
Total Sources of Additions	$ 858
How the Company Disposed of these Additions:	
Increase in Telephone Plant	$1,021
Less Increase in Depreciation and Amortization Reserves	221*
Total	$ 800
Increase in Other Investments	3
Increase in Working Capital and Deferred Charges and Credits	138
Total	$ 941
Less Increase in Funded Debt	83*
Total Disposal of Additions	$ 858

count, and transfer to depreciation reserve of amount transferred from the reserve to surplus in 1951. None of these items involved more than 3 million dollars.

The largest increase in net worth is attributed to funds raised by the issuance and sale of common stock, installments, and premium on common stock. The funds raised from this source amounted to $767 million. Minority interests held by the public in subsidiaries consolidated in the reported balance sheet increased to the extent of $10 million.

The sum of the sources of additions to net worth amounts to $858 million, a figure which ties in with the amounts shown in the Comparative Statement of Net Worth and Net Assets.

How the Company Disposed of Additions to Net Worth

The next section of the statement (Exhibit IV) shows how the company disposed of these additions to net worth. Additions to the net telephone plant amounted to $800 million during the year, the difference between the increase in telephone plant of $1,021 million and the increase in depreciation and amortization reserves of $221 million. The net increase of $800 million needs further analysis.

The lead sentence in a recent newspaper stated that "an increasingly large percentage of the huge capital funds required by industry for new productive facilities is presently coming from depreciation reserves." The reserves themselves cannot contain the funds since they are credit

accounts; but it is the means by which the reserves are created that permit an organization to conserve its cash and liquid funds from which new equipment can be paid for. Depreciation and amortization are non-imbursable expenses and do not have to be paid out of cash funds; they represent the estimated cost of the fixed plant that has been used up in providing service for a particular period of time. The reserves for depreciation and amortization, on the other hand, are deductions from fixed plant assets (as distinguished from depreciation and amortization expenses which are deductions from income), the difference being the estimated dollar value of the plant that is on hand at the present time. As depreciation and amortization expenses increase, so do the reserves providing no change takes place in the plant account. Unless the depreciation and amortization charges are known for the year it is impossible to conclude the amount of non-imbursable funds remaining in the business from which new productive facilities can be purchased. As our study is concerned only with the balance sheet and retained earnings statements, the amount of discarded plant is an unknown factor. Our study does show that at least new facilities in the amount of $1,021 million were ostensibly added to the telephone plant. Depreciation and amortization reserves during the year increased $221 million, leaving a net increase in the telephone plant of $800 million. Finally, the American Telephone and Telegraph Company cannot increase its net worth out of funds remaining in the business as a result of depreciation and amortization charges to expense. It can only replace the original cost of the plant in the form of new equipment. Net worth increases coming from within the business are primarily a result of earnings retained in the business after depreciation and other costs of production have been deducted from income Net worth increases coming from without the business are a result of the sale of equity capital in the form of common and preferred stocks. In this study, it seems safe to conclude that the greater portion of the increase in telephone plant was financed by the sale of common stock.

The increase in other investments of $3 million and the increase in working capital (difference between increases in current assets and current liabilities as shown in Exhibit I) and deferred charges and credits of $138 million make up the other two items in which the company disposed of its additions to net worth.

The next step is not so easily justified from the point of view of funds provided and funds applied. The company's funded debt increased $83 million as indicated in Exhibit I. It is logical to assume that funds raised from creditors provide a source of capital and working funds. Ordinarily bond and mortgage issues are the primary sources of long-term capital investments, that is, money raised from these sources is usually invested in capital items of a fixed nature, such as land, buildings, machinery, tools, and equipment. Sometimes, however, bond and mortgage issues are floated to redeem other long-term commitments or even to provide necessary working capital.

If the orthodox procedure were followed in this instance, the funds obtained from an increase in the funded debt should be classified as a source of funds provided. Since this study is concerned with explaining the changes in net worth, it would not be proper to classify an increase in funded debt as a source of addition to net worth. A company's net worth cannot be increased *per se* by borrowing money from its creditors. There are exceptions, however, such as the cancellation of a bond or mortgage debt, or donations and gifts to the company of its own bond and mortgage equities. In this particular case it is

presumed that the increase in funded debt will be off-set against the increase in other net assets; therefore, the figure of $83 million has been subtracted from the total increase in working capital, deferred charges and credits, and plant and investments. If this procedure is followed, the company will have disposed of total additions to net worth to the extent of $858 million.

CONCLUSION

This study purports to show how the annual report of a company (no matter how large) can be analyzed in order to determine the sources of additions to net worth and the disposition of these additions in a general way.

It is necessary that the company will include in its annual report a comparative balance sheet and statement showing changes in retained earnings or surplus, either contained as a part of the balance sheet or as a separate statement. The principle of accounting for the change in net worth to show the income increments (decrements) over a period of time is used as a basis for analyzing the annual reports.

This study departs from the idea of attempting to determine the source and application of funds or the change in net working capital, as it is assumed that these statements require access to the accounting records of the firm for the purpose of analyzing changes in depreciation reserves and adjustments to surplus. Furthermore, as the size of the firm increases, the individual stockholder becomes more and more discouraged in trying to understand the annual reports. The figures become meaningless; yet it is believed he understands the principle of increasing one's wealth, knowing that if he has more net worth or capital this year than last (in terms of money) he feels he is better off than he was before, assuming of course a stable monetary system. This is the same idea that is being presented here. The corporation must have net worth increases over a period of time; otherwise, it will remain static or gradually disappear from the economic picture.

The American Telephone and Telegraph Company and its Principal Telephone Subsidiaries increased its net worth during 1952 in the amount of $858 million, after paying or obligating to pay 78.6% of its net income for the year in the form of dividends to its stockholders. In general, the company increased its net investment in telephone plant $800 million, with another $138 million going into an increase in current working funds. Stockholders and minority groups increased their holdings of common stock $777 million, and the creditors increased their stake in the company by $83 million.

AUDITING STANDARDS AND COMPETENCE OF EVIDENTIAL MATTER

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As corporate enterprises have grown, changes have become necessary in the type of audit examination. Years ago audits were designed primarily to give owner-managers assurance that all cash had been properly accounted for and that mathematical or bookkeeping errors were non-existent. Today, wide-spread ownership and the resulting need for reliable financial and operating data have brought about an entirely different type of audit examination. Most examinations are now designed to permit the auditor to express an opinion on the fairness of a client's financial statements, and include areas well beyond the mere verification of the accuracy with which transactions have been recorded in the financial records.

SCOPE OF AUDITOR'S EXAMINATION BROADENED

In order that the auditor may be able to answer the question about the fairness of the financial statements, he must review more than merely the activities which management has assigned to the bookkeeper. It is necessary to review and examine all other delegated activities, and even the activities of management itself. Thus examinations have gradually expanded to include a study of the effectiveness of internal control measures which have been instituted, evaluation of cost methods and their effect on the determination of inventory values, review of management decisions as they affect the financial statements, and examination of various forms of evidence which will enable the auditor to determine the reasonableness of the figures in the financial statements.

All of the new areas listed above have become accepted as being properly within the province of the independent auditor, and a considerable amount of technical material has been written dealing with these matters. There has been a tendency, however, to take the matter of evidence for granted, and relatively little explorative work has been done relating to a clearer understanding of the many facets of this subject.

AUDITING STANDARDS AS RELATED TO EVIDENCE

The Committee on Auditing Procedure of the American Institute of Accountants clearly recognized the importance of evidence to the independent examination of financial statements, by including a reference to the matter of evidence in its report "Tentative Statement of Auditing Standards," published in 1947. Under the heading "Standards of Field Work," item three states "Sufficient competent evidential matter is to be obtained through inspection, observation, inquiries and confirmations to afford a reasonable basis for an opinion regarding the financial statements under examination."

The question of whether sufficient competent evidential matter has been obtained depends for its answer on two factors: 1) The *amount* of evidence which should be examined, based on the many variables which make each situation different, and 2) The *reliability* of the evidence which is available to the auditor.

Determination of the *amount* of evidence which should be examined depends on a

number of other factors. Each of these is discussed below.

Degree of internal control

The degree of internal control present in the client's accounting system has a direct effect on the over-all scope of the auditor's examination, and thus governs the amount of evidence which the auditor should obtain in support of the figures in the financial statements. Generally accepted auditing standards, of course, require that the system of internal control be carefully evaluated, and that sufficient tests be made of the system to determine that all stated controls are actually in effect.

Materiality

The relationship of the amount of an item to the amount of other items similarly classified, to final balance sheet totals, and to net income for the current year as well as for past years, will indicate the relative significance of the item. Since the fairness of the financial statements will be most seriously affected by misstatement of a material item, relatively more evidence should be examined in support of a material figure, than would be necessary in support of a figure which is not material.

It is interesting to note that identical amounts may vary in materiality. An unrecorded liability of $1,000 for merchandise in transit would normally receive less consideration than an unrecorded liability of $1,000 covering machinery repairs. The machinery repair item will affect the net income for the year, and will cause a relatively greater change in the current ratio.

Relative risk

Added risk that an item might be misstated logically calls for additional assurance that a misstatement has not occurred and hence there will be a need for additional or stronger evidence in support of the item. The risk might stem from the nature of the item, and thus since cash is highly susceptible to peculations it is likely to be examined more in detail than additions to plant and equipment. Similarly, a "miscellaneous expense" account is likely to receive closer scrutiny and necessitate reference to more supporting evidence than would be true for an account such as "office supplies," since the miscellaneous expense account is more likely to contain unusual or questionable items.

Circumstances surrounding a situation will also affect the relative risk. The cut-off of sales and purchases should be more carefully examined in a company known to be in financial straits and in need of additional funds, and a material change in income or excess-profits tax rates will normally suggest the need for more extensive tests of cut-offs.

PURPOSE OF THE EXAMINATION

If the auditor is reviewing evidence in order to ascertain whether prescribed standard operating procedures have been followed, the amount of evidence to be examined will normally be substantially less than if the purpose of the review is to ascertain that the balance of a given account is correctly stated.

Each of the above considerations should be relatively familiar to most practitioners and instructors, even though the effect that each has on the amount of evidence to be examined is likely to be determined almost subconsciously, based on past experience. The question of the reliability of evidential matter has, however, received far less study and consideration than the above-mentioned factors affecting the amount of evidence to be obtained. The following comments represent an effort to set forth the major factors likely to have a bearing on the determination of the reliability of evidential matter.

Reliability of evidential matter

The fundamental nature of an item of evidence will ordinarily be important in determining its reliability. In the examination of assets, for instance, physical contact with an asset would normally constitute more reliable evidence of its existence than would examination of a document purporting to evidence the existence of the asset. Thus physical evidence will generally be found to have a high degree of reliability.

Physical evidence

All forms of physical evidence may not be equally reliable, however. A cash count would be a form of verification through examination of physical evidence, but while the coin and currency could be accepted quite readily at face value, checks from customers can be forged more readily, or may be written against insufficient funds. These possibilities which affect the reliability of checks as evidence normally give rise to the need for additional verification, usually in the form of noting that the checks were not charged back after being deposited under control by the auditor.

Along the same lines, inventory as an item of physical evidence may involve a question of reliability. Diamonds, represented by a jeweler to be of good quality, might actually contain flaws which would not be apparent to the auditor, or the "diamonds" might even be "paste" imitations. Under such circumstances, a statement from a reliable diamond expert that his examination showed the diamonds to be as represented by the jeweler might well represent more reliable evidence than inspection of the diamonds by the auditor, even though the evidence would be documentary rather than physical. On the other hand, a document from a public warehouse confirming the amount of a client's inventory in storage normally would not be sufficient evidence of the existence of the inventory if material amounts were involved. Supplementary procedures consisting of verification of the actual existence of the warehouse, or even physical inspection of the inventory, would be in order in such a situation.

Documentary evidence

The type of evidence most commonly referred to by the auditor is documentary evidence. Such evidence is of greatly varying reliability, however, and further classification must be made of documentary evidence in order to find some clue as to its reliability. Whether a document is created within the client's organization or outside that organization will have a significant effect on its reliability.

Externally created documents, sent directly to the auditor

If documents prepared by third parties are sent directly to the auditor, they ordinarily constitute evidence of a degree of reliability approaching that of physical evidence, or even exceeding the reliability of physical evidence, as in the case of the diamonds mentioned above. Due precaution must be used in securing such evidence, however, for an accounts receivable confirmation request addressed to a dummy person or business and delivered to a conspirator associated with an attempt to defraud is likely to result in a reply which appears to be fully valid. Noting the postmark on the envelope in which the reply is received, verifying addresses before requests are sent, and investigating persons or businesses not known personally to the auditor are all methods of assuring the validity of such documentary evidence.

Externally created documents in the client's possession

What would normally be an extremely

reliable item of evidence if received directly by the auditor, loses part of its reliability if the document created by a person outside the business passes through the client's hands before it is examined by the auditor. This loss of reliability occurs, of course, because the client may submit a completely fictitious document having all the evidences of being authentic, or an otherwise authentic document may have been altered while in the client's possession.

Careful scrutiny and investigation of apparent corrections is a partial safeguard against being misled by an altered document, but direct transmittal of the document from the third party to the auditor is always the best type of guarantee that the document is valid and not tampered with. Thus the auditor always prefers to receive the cut-off bank statement directly from the bank, and a direct confirmation of an account payable is better evidence than a statement rendered by the vendor to the client.

Ease of counterfeiting a document is a vital factor in determining the likelihood of its validity. A note receivable, prepared on the type of form available from any bank or stationer is hardly good evidence of the validity of the receivable, even though the document meets the criterion of having been prepared outside the client's organization, and therefore written confirmation will usually be requested. On the other hand, a certificate evidencing investment in the capital stock of a corporation is very difficult to counterfeit—so much so, that normal audit procedures do not include direct verification of the investment by confirmation from the corporation issuing the stock. Certain collateral procedures should ordinarily be undertaken, however, such as examination of a broker's advice of purchase or the paid check covering the purchase, and ascertaining that all dividends due on the stock have been received.

Evidence originating within the client's organization

Documents or verbal information originating within the client's organization as a rule represent less satisfactory evidence than the forms of evidence which have already been discussed. Two factors largely explain why such evidence is less reliable. First, the employees preparing the documents or giving the information are under the direct control of management, and therefore the evidence may not be fully acceptable in attempting to corroborate the representations of management. Second, if a defalcation has occurred, documents prepared by the employees, or information given by them, may be falsified in an effort to conceal the shortage. In spite of these possible limitations, however, in some instances evidence from internal sources may approach the reliability of externally created documents. A paid check, for instance, is generally considered to be fairly conclusive evidence that a liability has been paid, or of the cost of an asset carried in the balance sheet.

The features which give a paid check such a high degree of reliability as evidence are the internal control measures inherent in its creation, the additional validity it acquires by passing through the hands of persons outside the originating organization with no objection being raised as to the correctness of the check, and the manner in which the check can be tied-in with the bank statement, which is an item of external evidence. There are relatively few internally-created documents which are subject to such careful outside review, but where such review is present the document tends to acquire reliability as evidence approaching that of documents originating outside the business. Other examples are a copy of a purchase order returned with the vendor's acknowledgment or a copy of a bill of lading receipted by the carrier's agent,

but even these documents do not approach the validity of a paid check because of the greater ease of alteration or forgery.

Many internal forms and records, even though not receiving the additional validation accruing to such documents which circulate outside the business, may still have a high degree of reliability as a result of extensive review by various employees within the organization. Internal control is thus the determining factor, as may be noted in the case of a receiving memo. The memo is prepared in the receiving department, which is completely independent of the accounting department, compared in the accounting department with the company's copy of the purchase order and with the vendor's invoice, and finally reviewed again when the invoice is approved for payment. A work order authorization created by a management committee, used by the accounting department to accumulate costs related to the order, and used as the directive to the maintenance department to do the work, is another illustration of a document receiving the benefit of good internal control measures.

On the other hand, an authorization created by the credit manager directing the bookkeeper to write off an uncollectible account is of limited value as evidence that an account is uncollectible, since the bookkeeper will not critically review the authorization. The situation is greatly changed, however, if the credit manager initiates the authorization, but sends it for approval to a representative of the controller's department, along with a copy of the ledger sheet, a record of the collection action which has been taken, and any related correspondence.

Certificates or confirmations obtained by the auditor from company employees are another type of internal documentary evidence, but are normally only of limited value as evidence because there is no internal control present in their creation or use. A repair man, travelling outside the home office with a complete inventory of repair parts, may be requested to send to the auditor a certificate listing the repair parts in his possession. Such a certificate is of little value as evidence that the repair man actually has the listed parts in his possession. The value of the certificate as evidence is considerable, however, if these parts are still carried as a part of the stockroom inventory, and the primary purpose of the confirmation is to verify the figure represented by the stockroom supervisor as being the amount of inventory for which he is accountable, but which he has issued to the travelling repair man. Thus, in evaluating internally-created documentary evidence, circulation of documents through the hands of outside parties, and good internal control in the preparation and use of the documents, will each be important determining factors.

THE BOOKS OF RECORD—JOURNALS AND LEDGERS

The preceding discussion has revolved primarily about evidence which may be useful in support of account entries or balances, but sometimes the accounts or journals may in themselves constitute adequate evidence. This will not be true ordinarily, but even when these records are not accepted on their own merits, the relative reliability of the records will directly determine the amount of collateral evidence which the auditor must obtain in support of the records. If good internal control is present, far less evidence will be necessary to justify the conclusion that an account balance is fairly stated, than would be the case if internal control were weak or non-existent.

In some instances, however, ledger entries may actually be accepted as evidence without collateral support. For example, the auditor may seek to determine the collectibility of a large account receivable

at the balance sheet date by ascertaining whether the account was paid at a subsequent date. If internal control is good, the auditor may accept the posting of a cash credit to the account as adequate evidence. If internal control is weak, however, collateral evidence should be secured by reference to the cash book entry, copy of the deposit ticket (authenticated by the bank, if necessary), or the customer's remittance advice. The choice as to which of these items of evidence is selected will depend on the time that will be required to obtain the evidence, and the degree of reliability the auditor decides is necessary in the circumstances.

COMPARISONS AND RATIOS

One last form of evidence, although based on the ledger accounts, may actually serve to strengthen the reliability of the accounts themselves. For instance, the auditor may obtain additional assurance that the amount of salesmen's commissions is fairly stated if the amount is in line with previous years, both in dollars and as a per cent of sales. Similarly with respect to accounts receivable, the relationship of that figure to sales for the year gives the auditor additional evidence that the account is fairly stated over and above the evidence represented by the balance of the receivable account alone. Comparisons and ratios thus constitute still another form of evidence.

SUMMARY

The growth in the importance of evidence has been reviewed, factors affecting the amount of evidence the auditor should obtain have been set forth, and major classes or types of evidence have been suggested, as follows: physical evidence, documentary evidence originating outside the client's organization, evidence originating within the client's organization, the client's books of record, and ratios and comparisons. In general, some indication of the reliability of an item of evidence is apparent from the classification into which it falls, but there is great variation in the reliability of items within any given classification and some of the factors governing such variation have been suggested. The determination of how much evidence the auditor should obtain, and the matter of the reliability of the evidence he obtains are both important in relation to the generally accepted auditing standard that sufficient competent evidential matter must be obtained to afford a reasonable basis for an opinion regarding the financial statements under examination.

ACCOUNTING PRINCIPLES: THEIR GENERAL ACCEPTANCE AND APPLICATION

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"IN OUR OPINION, the accompanying financial statements fairly present the financial condition of the business at December 31, and the results of operations for the period ending on that date, according to generally accepted accounting principles applied on a basis consistent with that of the previous year." This statement, or slight modifications of it, appears annually, attached to hundreds of sets of financial reports. Periodically, criticism is voiced because of the fact that such wide latitude exists under the present concept of "generally accepted accounting principles applied on a basis consistent with that of the preceding year." Most accountants are aware of the fact that, even for concerns in the same line of business, comparisons of financial statements may be all but meaningless because of different accounting practices followed by different firms. It is the purpose of this paper to examine some of the factors involved in the present concept of "generally accepted accounting principles" as well as their application.

Even though no formal, codified set of accounting principles exists, there is general agreement among those who prepare and use financial statements as to the *basic* principles. The concepts of the "going concern, matching of income with related expense, and cost as an original measure of value" are probably unchallenged. "Conservatism," or the postulate of "anticipate no profits and provide for all probable losses" is likewise widely accepted. However, all sorts of disagreement exists when methods of applying these basic principles are considered. A dictionary[1] definition of "generally" is as follows: "for the most part; ordinarily; in most but not all cases." Obviously, in some cases it is difficult if not impossible to determine generally accepted *application* of accounting principles. Yet, it is the application of the basic principles which finally determines the form and content of the financial statements. Thus, it appears that the provision for following generally accepted accounting principles has a very limited effect in making financial statements comparable and therefore reasonably useful. And at present, no formal, organized effort is being made to de-limit the wide latitude used in applying accounting principles. The Accounting Research Bulletins of the American Institute of Accountants are a halting step in this direction, but note #1[2] attached to those statements removes some of the effectiveness and most of the authority which these pronouncements might have. The note leaves the reader of the bulletin essentially in the position of relying on general acceptance of methods and procedures, an impossible task in handling most controversial accounts.

To further complicate the situation, there are those who assert that special methods and procedures apply in their special fields, and therefore that these fields should be exempt from the whole

[1] Funk & Wagnalls, *College Standard Dictionary*, 1946, p. 485.
[2] See any of the issued bulletins.

concept of generally accepted accounting principles. Professor Lloyd Morey of the University of Illinois is a leading proponent for a separate set of accounting principles and procedures for non-profit institutions. Acceptance of his proposal will probably lead to similar action in other fields of accounting, the result being that the use of financial statements will become even more difficult than at present. Certainly several different sets of principles would create utter confusion among non-accountants who attempt to secure data from financial statements.

By whom are these accounting principles accepted? In accounting literature, one finds statements to the effect that good, i.e. correct, accounting is that which is used in business and industry. General acceptance often seems based on this concept. Evidently this leads to the conclusion that the principal user of accounting determines accounting principles and has almost unlimited latitude in their application. It appears that this is somewhat analogous to a situation in which one party to a transaction decides all of the rules and laws for the transaction with solely his own welfare and prosperity to consider. In fact, it was the prevention of possible and correction of actual abuses from this condition that led to the existence of the professional accountant. It follows that the professional accountant must never forget that he serves society as a whole and not just a particular segment of that society. The client who foots the bill is not the primary consideration in the preparation of audited financial statements. This is contrary to general business procedure, but it is this fact which lifts public accounting to a professional status. All of society depends upon the accountant to supply unbiased, factually correct data for its use. If the professional accountant fails in this endeavor, his existence is no longer justified. But can he fulfill his obligation if accounting is in effect controlled by industry?

If industry is not to determine generally accepted accounting principles and their application, who shall? Accounting is far too technical a subject for the general public to comprehend and control, and yet, the interest of society must be protected. Therefore, the following criterions are suggested as a means of selecting those who might assume the responsibility for determining standards of application as well as principles: (1) a demonstrated proficiency in accounting; and (2) an interest in accounting as a rational subject, per se. In seeking those who satisfy the first requirement, an acceptable though not infallible guide is the C.P.A. certificate. Finding those who also satisfy the second requirement is more difficult. However, practicing certified public accountants and college instructors in accounting should in general satisfy this second requirement. These restrictions would place responsibility for determining standards and principles on a minority of accountants, but mob-rule cannot be substituted for impartial observation in fields of learning. No doubt there are many accountants employed in industry and government who also meet these requirements, but because of their type of employment, they fail to meet the objective test of independence concerning the use of accounting.

It has been implied and is now suggested that a more effective limit on application and determination of accounting principles is desirable. General acceptability, as now understood, and consistency, are hardly sufficient safeguards for the protection of all who directly or indirectly rely on accounting data. A greater standardization of practice seems desirable. For example, the present disorganized confusion which surrounds inventories could and should have been avoided. Experience indicates that LIFO is an expedient, stop-gap meas-

ure which at best inaccurately accomplishes its announced intention of more correctly matching income and expense. Proper consideration of the method *before* its adoption would have revealed the many shortcomings of the proposal. Perhaps at this point the distinction between legislative sanction and correct accounting should be noted. Governments can require documents submitted to them to be prepared in a stated manner, but legislative decree cannot make an accounting practice acceptable or non-acceptable in the true sense. Legal sanction and correct accounting must not be confused. Attempts to influence legislative acts to follow good accounting practice are desirable, of course. But if these attempts fail, measures prescribed by law should be used only as the law requires and not be confused mistakenly with good accounting.

The concept of generally accepted accounting principles has been challenged. If the procedures suggested above are carried out, the phrase "generally accepted" would have a more clearly defined meaning than at present. Furthermore, it would cover application of principles as well as the principles themselves. An attempt would be made to substitute logic and reason where expediency and tax-saving considerations often now dominate. This would not mean stagnant or rigid accounting. In fact, desirable changes would likely come about more readily than at present. The interests of society, and therefore of professional accounting, would be better protected than they are under the present haphazard system. Decisions of jurists, largely ignorant of the over-all effect of their pronouncements, would cease to be important factors in accounting. It might be well even to alter the phrase "generally accepted" to "competently accepted" or some similar terminology. This seems to be better basis on which to practice the complex combination of art and science which we call accounting.

If it be conceded that the ultimate purpose of accounting is to convey accurate, useful information, then it must be realized that the ultimate purpose is far from final achievement. One reason accounting falls short of its goal is the extreme diversity which is found in applying accepted accounting principles. It is argued here that those competent accountants, who are in fact independent, should exercise greater control over acceptable accounting practice. The exact means by which this might be accomplished has not been discussed, but it is believed that action toward this objective is both necessary and desirable.

REPORT OF THE ANNUAL CONVENTION

CHARLES J. GAA
Secretary-Treasurer

THE 1953 annual meeting of the members of the American Accounting Association was one of the most successful in its history. It was held on September 1 and 2 in Chapel Hill, North Carolina, with the School of Business Administration, University of North Carolina as host. The extreme heat during the days of the meeting resulted in making this convention the most informal we have ever had. To match the well-known "Shirt-Sleeve Economics," we had "Sports-Shirt Accounting" at Chapel Hill.

Since the July issue of the ACCOUNTING REVIEW included the complete convention program, only a few brief comments need be made here concerning it. As a departure from our usual practice, there was a full day of preconvention social activities. On Monday, August 31, several bus loads of people visited the Chesterfield Cigarette factory in Durham and the beautiful campus of neighboring Duke University. Martin Black of Duke University acted as the tour director. The evening was topped off with several organized but informal "bull sessions" in the Carolina Inn. Golf and swimming facilities were made available to women and children and to the members who played hooky from the technical sessions.

The ladies' program, in addition to the activities provided on Monday, included a bus tour of Raleigh, lunch at the Carolina Country Club, and "A Trip To The Moon" in Morehead Planetarium.

At the business meeting and luncheon on Tuesday, Dean Carroll made a welcoming address, and brief reports were given by the Editor regarding the ACCOUNTING REVIEW, by the Secretary-Treasurer regarding finances and membership statistics, and by David Lindsey concerning the price level study being conducted with a Merrill Foundation grant of funds. President Hassler discussed American Accounting Association publications in 1953, the *Accounting Teachers' Guide* and the work of the committees. He read a list of names of members who died since August of 1952, and a moment of silence was observed in their memory.

Leslie James Buchan, Director, Commission on Standards of Education and Experience for C.P.A.'s spoke on the work of that group at the luncheon on Wednesday.

After the banquet on Tuesday evening—which was attended by four hundred and thirty-five persons—President Hassler introduced the members of the Committee on Convention Arrangements, the Ladies' Program Committee, and the persons seated at the speaker's table. Robert Burton House, Chancellor of the University of North Carolina, delivered an extremely entertaining speech which sugar-coated a serious message. We shall be fortuante if we can secure speakers for future banquets who approach the excellence of Chancellor House. The Alpha Kappa Psi Award was made to Professor William A. Paton for his contribution to the field of Accounting.

The Committee on Nominations (composed of Henry T. Chamberlain, Robert L. Dixon, Thomas W. Leland, Hermann C. Miller, and Sideny G. Winter, Chairman) nominated the following persons, who were subsequently elected:

President—Frank P. Smith, University of Michigan
Vice President—Charles J. Gaa, University of Illinois
Vice President—Paul Grady, Price, Waterhouse & Co., New York
Vice President—Wayne E. Shroyer, University of Denver
Secretary-Treasurer—R. Carson Cox, Ohio State University
Director of Research—John A. White, University of Texas
Editor of the ACCOUNTING REVIEW—Frank P. Smith, University of Michigan.

President-elect Smith made a brief acceptance speech. Then the North Carolina Committee on Convention Arrangements presented President and Mrs. Hassler with gifts. Entertainment for the rest of the evening was furnished by the distribution of door prizes, which consisted of many products of North Carolina industry.

The Committee on Convention Arrangements and the Ladies Program Committee headed by Professor and Mrs. Erle E. Peacock did a wonderful job and have our appreciation.

THE TEACHERS' CLINIC

FRANK S. KAULBACK, JR.

EDITOR'S NOTE: Many of the experienced teachers, as well as some of the new ones have developed devices and techniques for the presentation of certain of the knotty aspects of accounting, and it is felt that such suggestions might well be made available to the other members of the teaching profession through *The Teachers' Clinic*. Accordingly, contributions are hereby invited. Please address all correspondence to Frank S. Kaulback, Jr., School of Commerce, University of Virginia, Charlottesville, Virginia.

A PRACTICAL ACCOUNTING COURSE FOR NON-COMMERCE STUDENTS

ROBERT H. VAN VOORHIS
University of Alabama

A great deal of thought and writing has been devoted to curricula for accounting majors, to accounting courses for commerce students majoring in other fields, and to accounting service courses for engineers, lawyers, home economists, and others. The development of a practical course in record keeping for college students other than these specialized groups seems to have been rather neglected.

THE NEED FOR A PRACTICAL ACCOUNTING COURSE

In our personal and social activities, each of us engages in many business or financial operations. We handle cash, deal with banks and merchants, obtain credit, rent or own property, carry insurance, and become subject to income and other taxes. Professional men and women have a real need for simple, accurate records. Small businessmen must keep even more detailed account of their affairs. The club or church member should understand the financial operations of his organization and be able to serve as its financial advisor or treasurer if called upon. The corporate investor needs to learn how to interpret his company's reports. The good citizen interests himself in the business affairs of his town, state, and federal government. In order to carry on such ordinary business or financial operations successfully, the individual must be able to keep various forms of simple records, and to understand something of more complicated ones.

The Case of the Simple Sorority Sisters

Most teachers have had pointed out to them by employers of their students the embarrassing fact that some of our accounting graduates seem deficient in even the simpler accounting or auditing techniques. But perhaps few of us have thought seriously about the almost total lack of understanding of such techniques on the part of many otherwise intelligent people who have not studied accounting. Let me cite one example which, although it seems almost unbelievable, actually happened.

Several years ago, a local chapter of one of the larger sororities thought itself to be in financial difficulties. With considerable reluctance, it ultimately obtained a loan of several hundred dollars from its national headquarters. When the check arrived, the local treasurer was apparently made to understand for the the first time that it would have to be deposited in the bank before the money could be spent. Upon learning this elementary fact of business life, the treasurer felt constrained to mention that she had almost fifteen hundred dollars in a shoe box in her room, in cash and checks. These had accumulated over a period of several months, during which time the chapter's

bank balance had steadily declined because checks were written but no deposits were made.

A subsequent audit, made by the writer, suggested that cash receipts had been used in part to pay current bills, although no record was kept of bills paid. The receipts records were so haphazard that it was impossible to determine the total cash taken in by the treasurer or to learn exactly how much had been paid by or was still due from individual members. No one suggested that the treasurer was dishonest, and no evidence of dishonesty was uncovered. But the naïvete of the treasurer was shocking and the lack of understanding of the true situation on the part of the other chapter members or their adult advisors was surprising, to say the least.

The Case of the Weary Wealthy Woman

In spite of the usual message printed on most bank statements, urging the depositor to check the figures and report any errors to the bank promptly, a considerable number of people either do not know how or do not bother to reconcile their checkbook and bank statement balances.

A revenue agent tells of this situation, encountered in the course of an income tax investigation into the affairs of a wealthy woman who could not be bothered with keeping records. Among other things, it developed that this woman had an arrangement with her bank to notify her when her checking account balance was exhausted and to hold overdrawn checks until she could transfer funds from her savings account to cover. This conveniently relieved her of the necessity of keeping a checkbook stub record or reconciling her bank balance periodically. The revenue agent obtained her bank statements and cancelled checks for a three year period, carefully preserved—but unopened.

Accounting Survey Courses Fail to Meet the Need

These are by no means isolated cases. There is widespread ignorance—or carelessness—in such financial matters. A conviction that some knowledge of financial record keeping should be obtained by everyone leads to the belief that there is a challenge and a real opportunity for accounting faculties to provide such instruction. The potential student audience should include those in all fields other than commerce and the few specialties, such as engineering, for which service courses have already been developed.

A number of colleges offer survey courses in accounting which purport to serve the needs of this non-commerce, non-specialist group. But an examination of several suggested texts for such a survey course indicates that it is likely to be a somewhat condensed and watered-down version of the usual principles course, streamlined in order to cover as much as possible of the usual material in three hours instead of six or more. In some cases there is brief coverage of topics not generally found in first-year accounting texts. It is strongly felt that such courses do not adequately serve the needs of the audience to which they are apparently directed.

A DIFFERENT APPROACH

Several colleges have offered courses designed more specifically to meet the general record keeping needs of an average member of our modern, complex society. At the University of Alabama, the writer has taught such a course during the past three years. It is offered (for three semester-hours credit) to juniors, seniors and graduate students in schools other than commerce and engineering. It has no prerequisites and does not serve as prerequisite for any other course. Material used has included a set of high school bookkeeping projects, specially developed mimeo-

graphed materials and problems, and various published texts of the survey variety. The latter have proved particularly disappointing, because they follow the usual principles textbook approach to the the teaching of accounting.

A somewhat novel approach is attempted in this course, a feature which may be of significant interest to those concerned with the methodology of elementary accounting instruction. The students are started working, in class, on a simple bookkeeping project, before discussing accounting statements, journalizing of transactions, terminology, or even the simplest accounting principles. The combined cash journal is used as the vehicle for the first project. Within a few minutes the student finds himself understanding its use sufficiently to record simple, yet practical, data. Experience has indicated that this approach arouses student interest and obtains sympathetic understanding to an extent rarely achieved with the statements approach or the usual transactions approach.

As planned for presentation in the spring of 1954, the Alabama course is divided into fourteen sections. Tests are given after the fourth, eighth, and twelfth sections, with a three-hour final examination at the end of the course. Problem work paralleling the class presentations and discussions is assigned for completion by students outside of class. Detection and correction of errors is stressed throughout. Much of the material is in mimeographed form; it is hoped that eventually this may be published and thus made available to others desiring to offer a course along similar lines. An outline of the fourteen sections follows.

1. *The Need for Records*

By way of introduction, a class meeting or two is spent in pointing out the need for records in our modern, complex society. For example, the individual must prepare himself to make out an income tax return at the end of each year, by keeping records adequate to disclose his taxable gross income and deductions therefrom. Since no specific records are prescribed, any simple, accurate system can be used. The family unit may want to formulate a budget and with its aid to exercise control over its expenditures. Even the smallest social organization will try to keep account of the money collected from its members and the purposes for which it is spent. Religious and charitable organizations have even more compelling needs for records: to aid in planning, measuring accomplishments with relation to plans, and reporting to officers and directors, community chests, or higher echelons within the organization. Record keeping needs of professional men and small business men operating independently or in partnerships are discussed, but no coverage is attempted of corporate organizations in the business field.

2. *Personal Records*

Simple techniques of accounting are introduced in a practical way by having the students in their second or third class meeting set up a combined cash journal with appropriate headings indicated by the instructor, and enter therein a month's transactions for a college student with a part time job. One line is used for each day's record, so that a full month can be recorded on one page. Column headings (such as Cash Received, Cash Disbursed, Salary Income, Other Income, Room and Board, Clothing, Recreation and Development, Church and Charity, Medical Expense, and Sundry) indicate rather clearly the location of each item. The double entry principle is followed immediately and almost unconsciously, while the instructor introduces the technical terms debit and credit and demonstrates that the record

for each day must balance. A sufficient variety of transactions are discussed and recorded in class so that the student can visualize himself keeping track of his own affairs in this simple but sound manner.

3. *Summarizing the Records*

At the end of the month, the cash received and cash disbursed columns are totaled. The cash balance determined from the combined cash journal is compared with cash on hand, and cash over or short recorded. The rest of the columns are then totaled, and the record is proved by cross-footing. A summary statement of income and expense is made up, using the column totals. No ledger is described or suggested. At the end of the second month, the column totals for the first month are added at the bottom of the second page to the totals for the second month, in order to obtain totals to date. Statements are now presented showing the operating results of the current month and year to date in simple form.

4. *Family Records*

Headings of the combined cash journal are changed and expanded to take care of the financial needs of the family unit. The mechanics of recording and summarizing are the same as for the personal records, so that other problems can be introduced. The family operates a bank account and reconciles its bank statement at the end of each month. Bills are paid by check wherever possible. Ways of obtaining credit are discussed, as are common forms of insurance protection, the preparation and operation of a family budget, and the assessment and payment of property taxes. While some of these topics are not strictly accounting problems, they are important to the non-commerce student and form a part of his general financial records. A simple statement of financial condition is introduced for the family unit at the beginning and end of the year, and the operating statement is shown as a link between the successive balance sheets.

5. *Social Organizations*

The combined cash journal is next adapted for use by a social organization operating on the cash basis. New problems revolve around the accounts with members. A record card is set up for each member. Dues and other charges are entered on the cards and bills are prepared from the cards at the first of each month. A control card is set up, and total current billings entered thereon. Duplicate receipts are written for all cash received. Appropriate entries are made in detail on the members' cards and in the combined cash journal. Total receipts from members for the month are entered on the control card. The procedure is relatively simple, yet effective. The distinction between capital expenditures and revenue expenditures is discussed. No general ledger is set up; monthly statements of income and expense and of financial condition are prepared from the appropriate columns of the combined cash journal. At the end of the first year, asset and equity column totals are carried forward to the top line of the new combined cash journal; the income and expense totals are not.

6. *Professional Persons*

The combined cash journal is easily adapted to the needs of a professional person operating on the cash basis, for example, a doctor or lawyer. Special records are introduced, such as the doctor's diary of calls made outside the office, his day book of office visits by patients, and the lawyer's docket of work done for each client, listing direct charges to the client

for expenditures in connection with each case. A control card similar to that used for the members' accounts in the social organization is reviewed and appropriate procedures for handling charges to and receipts from patients or clients are discussed. The operation of a petty cash fund on the imprest system is explained and illustrated. Since the professional person may have employees, the elements of payroll preparation and payment are introduced, including a consideration of employee deductions, payroll taxes, and employee earnings records and reports.

7. *Religious Organizations*

Replacing the combined cash journal, separate cash receipts and cash disbursements journals and the general journal are introduced. A ledger is set up for balance sheet accounts. Income and expense accounts are posted to a budget comparison sheet, with the net difference between current income and expense posted to a general ledger account titled "Surplus from Current Operations." The preparation and adoption of a budget is discussed. Illustrations are worked out showing the comparison of budgeted and actual results on monthly operating statements prepared for church officers and members. Monthly balance sheets are recommended. Detailed records of member pledges and payments are described, together with a procedure for sending to each member a quarterly statement of his record. Other problems of church finance and operation are considered, including procedures for establishing control over cash receipts at the earliest possible moment by counts conducted by two or more officers before monies are turned over to the treasurer.

8. *Charitable Organizations*

The system set up for the religious groups is adapted for use by charitable and service organizations such as the Y.M.C.A. (whose nationally recommended system, incidentally, these suggestions follow rather closely). Several self-balancing funds are set up to account for various activities having different sources of revenue from which to make their expenditures. It is noted that many religious organizations make use of this funds accounting also. Illustrations are given of reports appropriate to the needs of the operating executives, controlling board, community chest or other sources of funds, and national organization.

9. *Small Retail Business—Sole Proprietorship*

In setting up the records for a small retail business, the sales journal and purchases journal are introduced and the separate cash receipts, cash disbursements, and general journals reviewed. A complete general ledger is set up, with all accounts posted appropriately at the end of each month. Control accounts and subsidiary ledgers are maintained for accounts receivable and accounts payable. The accrual basis of accounting is used for the first time. Notes and interest are considered and physical inventories are explained and set up on the books. Depreciation and the provision for bad debts are discussed and other necessary adjustments are made at the end of the month preliminary to preparing monthly statements of profit and loss and balance sheets.

10. *Partnership Records*

Discussion of this subject is limited to a brief description of partnership rights and duties, the formation of a partnership, and the division of partnership profits. The journals, ledgers, and adjustments of the preceding section are reviewed thoroughly. New material includes consideration of sales tax, use tax, and privilege license tax.

11. *Individual Income Tax—Introduction*

A brief description of the history and significance of the individual income tax serves to emphasize the necessary limitations of coverage of this involved topic. In this section, the determination of adjusted gross income is covered, with discussion of typical items included and excluded. Such matters are considered as business and professional income and deductions; salary income and the treatment of travel expense and reimbursement; information return of and taxability of partnership net income; rents and royalties income and deductions; and some of the more common other items affecting adjusted gross income.

12. *Individual Income Tax—Conclusion*

The continuing discussion of individual income tax problems covers "other" (personal) deductions, exemptions, and calculation of tax due. Students prepare tax returns on actual blanks, including the optional Form 1040A, both short and long Forms 1040, and the tax on self employment income reported on Form 10 Schedule C. Consideration is given to the preparation and filing of estimated tax returns on Form 1040ES. and the payment of the tax. Sources of information generally available to the layman are indicated and methods of obtaining help in preparing tax returns are discussed. Internal revenue review and enforcement procedures are outlined.

13. *Analysis of Corporate Financial Statements*

This subject is approached from the viewpoint of the small investor. The booklet, *How to Read a Financial Statement* (published by Merrill Lynch, Pierce, Fenner, & Beane) is used, together with the published annual reports of several well-known corporations. Typical financial ratios and their interpretation are developed, based upon information normally available in published corporate reports. Reference is made to sources of statistics and investment services available to the small investor. The functions of stock brokers are described.

14. *Government Finance*

The use of separate funds in the accounting records, a principle already introduced, is further elaborated. There is no attempt to cover the complexities of governmental accounting entries in detail. Instead, such general topics are explored as the source of government revenue, the preparation and functioning of budgets. Emphasis is placed on examination and interpretation of local government financial statements.

SUMMARY

A careful review of the course outlined above discloses that much of the material included in the typical accounting survey course is covered. In spite of its novel beginning, it ultimately provides the student with an orthodox picture of double entry bookkeeping. By the time section nine is reached, we are using the accrual basis of accounting, with four common special journals, plus a general journal, a complete general ledger, and controlling accounts and subsidiary ledgers. Inventory problems and accounting for notes and interest are explained. Payroll preparation and employee earnings records have previously been covered, as have property taxes. Sales tax, use tax, privilege license tax, and the individual income tax are covered in subsequent sections. The balance sheet and statement of income and expense have been shown in several uses. Methods of analyzing published corporate reports are explored, and governmental financial problems and reports are considered.

In addition to this coverage of tradi-

tional material, our course has the advantage of offering specific helps in some of the more common financial and record keeping problems an individual is likely to meet. Designed as it is for students in fields other than commerce, it may provide their only exposure to the subjects of credit, insurance, and taxation. While coverage of these matters is by no means comprehensive, it should serve to answer the more general questions and to indicate the point beyond which professional counsel should be obtained.

As noted above, perhaps the most significant feature of the course is its approach to accounting instruction. Without preliminary discussion, the student begins to record data in a combined cash journal. Through this approach, the student finds himself at the very outset keeping a practical record whose immediate usefulness to him in his present situation he can readily understand. Moving by easy stages, he visualizes himself keeping records for his family group, then concerned with his social club, church, and other outside organizations. Accounting techniques are introduced as their need and usefulness become apparent. Almost without realizing it, the student discovers that he has mastered many of the techniques of bookkeeping which his fellow students taking traditional principles courses (or the usual survey course) often fail to understand and appreciate, or rebel outright against learning. With this background, he is then exposed to simple bookkeeping records for a retail business, kept along fully orthodox lines. If student interest should lag here, it is almost certain to revive with the study of the individual income tax, which seems to have almost universal appeal.

Having completed this course, the student will certainly lack some of the understanding of techniques and of theory which those taking a traditional principles course should grasp. He may not have been introduced to some of the phases of accounting touched on in the usual survey course. But he should have accomplished the purpose of obtaining a knowledge of practical record keeping which will help him, both immediately and throughout his later life.

The Comprehension Gap for Beginning Accounting Students

Willard E. Stone
University of Pennsylvania

There are two basic approaches to the teaching of accounting fundamentals. One, using the deductive method of reasoning, introduces first the statements in the hope that an understanding of the "end product" of accounting will capture the students' interest and broaden their comprehension of the subject. It is also hoped that it will permit them to appreciate the reasons and the need for the detailed procedures. The other approach, the inductive, begins with the account and works forward in a logical manner through the accounting procedures to the statements.

Many texts have been written using one or the other of these two approaches but it appears that the statement approach has gained the widest acceptance in the past decade. The reason for its popularity is the belief that it gives the students an overall grasp of the subject more quickly. Some may question this conclusion, but all will agree that the goal of an early understanding of the complete picture of the accounting procedures is desirable.

In the effort to hasten the students' understanding of the cycle, some texts

have followed the plan of moving quickly through the fundamental procedures. A skeleton framework including journalizing, posting, the work sheet, adjusting, closing and the statements is presented first with further details, refinements and expansions considered later.

The statement approach and the two step development of accounting procedures have been in use at the Wharton School, University of Pennsylvania, for many years. In spite of the belief by the staff that this plan is most likely to lead to an early grasp of the subject, there is a feeling that there is a comprehension gap on the part of some of the students which continues until the complete cycle is covered.

In the spring of 1953 a survey was made at the Wharton School in which sixteen instructors of accounting fundamentals and one hundred seventy-three students enrolled in the second course of accounting were questioned about this comprehension gap.

The instructors were asked the following questions with the results noted:

1. Is it your observation that a significant number of students seem to experience a period of working in the dark at sometime during the term?

None 0 A Few 10 Many 6

2. If you have observed students experiencing this hurdle, do you consider it routine in learning accounting?

Yes 4 No 11 No Answer 1

3. Do you consider this period of sufficient duration to be termed a deterrent to hoped-for progress?

Yes 4 No 11 No Answer 1

The students' questionnaire contained the following question and was answered as shown:

It is often claimed that there is a period of "working in the dark" during the first course, where you merely follow illustrative examples rather than work with comprehension. Did this happen to you?

	Total	*Yes*	*No*	*No Answer*
All Students	173	91 (52.6%)	81 (46.8%)	1 (.6%)
Accounting Majors				
Grade of A or B in Acc't 1	59	30 (50.8%)	29 (49.2%)	
Grade of C in Acc't 1	52	28 (53.8%)	23 (44.2%)	1 (2%)
Non-Accounting Majors				
Grade of A or B in Acc't 1	37	15 (40.5%)	22 (59.5%)	
Grade of C in Acc't 1	25	18 (72.0%)	7 (28.0%)	

The breakdown by accounting and non-accounting majors and by grades is interesting, particularly the high percentage of non-accounting A or B students who denied the existence of any "period in the dark." There may be some significance in the fact that these students must have enjoyed their first year accounting course because they were not required to take the second course, they were there by choice. The overall results of this survey are perhaps only conclusive that a gap does exist for at least 50% of the students. This blind spot for students seems to occur in the statement approach plan when the technique of debit and credit is first discussed. Students enjoy and understand the general consideration of statement preparation, then lose the overall picture in the detail of journalizing and posting. The study does indicate the need for instructors, even at the risk of frequent repetition, to keep the students aware of the ultimate goal of the course, while the students are struggling with the requirements of particular procedures.

In an effort to discover more about this temporary lack of understanding of where accounting is leading them, an experiment

will be tried in one section of approximately 30 students this fall. A mimeographed outline covering all the primary steps in the accounting cycle and the concept of the accounting period will be distributed the first day of class. The titles of the steps will be in accounting language, such as journalizing, posting, adjusting, closing and the preparation of statements. The explanation of these terms will be made as far as possible without the use of technical accounting terms. After this material has been discussed, the class will continue with the statement approach. A survey will be conducted at the end of the course to determine if the students in this class benefited by a brief consideration of the steps of the complete cycle at the very beginning of the course.

THE AIA RECRUITING FILM

Bertram Broder
Pace College

A critical shortage of certified public accountants is one of the big problems facing the American Institute of Accountants today. In 1900 there were only 243 certified public accountants in the United States. Today there are nearly 50,000 with forecasts predicting nearly 60,000 by 1960. Public accounting is the fastest growing profession in the country and yet a critical manpower shortage has the AIA hanging out the "Professional Help Wanted" sign.

The first major effort in this recruiting drive is a 16 mm. 21 minute monochrome sound film, "Accounting—the Language of Business," which was officially released on December 15, 1953. The film was produced in Chicago by Wilding Pictures, Inc., the largest producer of commercial films in the world, and the production is of strictly professional quality. The script was carefully scrutinized by members of the AIA personnel and public relations committees with at least one AIA representative being present during the whole process of production to assure the correctness of details.

"Accounting—the Language of Business" is introduced by a brief scene in which a father asks a friend who is a certified public accountant to explain the possibilities of public accounting as a career for his son who is about to graduate from high school. Three episodes have been chosen to illustrate interesting problems which arise in connection with auditing, systems and internal control, and tax work.

The first sequence poses the problem to the auditor of a physical inventory overage. To solve the problem the auditor actually goes to the operational area to study the problem first hand. This scene certainly should do much to dispel the layman's misconception of the CPA as a pencil-pushing drudge; in fact, the aura of adventure heightens the presentation.

Lack of adequate internal control is the reason given by the CPA for the perpetration of fraud by a trusted employee in a radio and television manufacturing company in the second sequence. Although the situation seemed "too pat" for an actual experience, the scene does have a vast amount of dramatic appeal.

The final episode deals with tax work. As the case unfolds the CPA is portrayed as being able to iron out his client's tax difficulties, because of his training and experience in the Accounting and tax field. This sequence also emphasizes the high esteem in which the CPA is held by the Internal Revenue Service.

While there are a few minor flaws in this film, such as the lighting of sets in one or two scenes, technically the camera work and the sound are excellent. The acting as a whole was good and the actor portraying the accountant did an excellent job in conveying to the audience the impression of the certified public accountant as a warm-hearted individual who has professional independence, enjoys the breadth and variety of his work, and makes a comfortable living.

Intentionally, no attempt is made to furnish details of the training and experience required to become a certified public accountant. The AIA feels the film will have served its purpose if it conveys a generally favorable impression of the certified public accountant and his standing in the community.

While the picture has been planned primarily for recruiting purposes it is doubtful that the film alone will attract many

young Americans to the CPA ranks. For that reason the Institute suggests distribution of the pamphlet "Professional Help Wanted" and making available a speaker to answer questions wherever the film is shown. A companion film of the same high caliber dealing with the training and experience required to become a CPA would be desirable.

This film has even greater public relations value than recruiting value. It is an excellent picture to present to adult audiences unfamiliar with the CPA's work.

The film is available for distribution through the four offices of Association Films, Inc. Write to the office nearest you. Addresses are as follows:

Association Films, Inc.
79 East Adams Street
Chicago 3, Illinois

Association Films, Inc.
1915 Live Oak Street
Dallas 1, Texas

Association Films, Inc.
Broad at Elm
Ridgefield, New Jersey

Association Films, Inc.
351 Turk Street
San Francisco 2, Calif.

The AIA will pay the distribution costs to the consignee; however, return postage must be borne by the consignee.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were prepared by the Board of Examiners of the American Institute of Accountants and were presented as the first half of the C.P.A. Examination in Accounting Practice on November 4, 1953. The candidates were required to solve problems 1 and 2 and any two of the remaining three problems. The weights assigned were: problem 1, 15 points; problem 2, 15 points; problem 3, 10 points; problem 4, 10 points; problem 5, 10 points. The time allowed was four and a half hours.

A suggested time schedule is given below:

Problem 1	45 minutes
Problem 2	75 minutes
Problem 3	45 minutes
Problem 4	30 minutes
Problem 5	60 minutes

No. 1

Russell Waters established a retail business in 1950. Early in 1953, he entered into negotiations with John Jones with a view to forming a partnership. You have been asked by the two men to audit Waters' books for the past three years.

The profits per client's statements were as follows:

	Year Ending 12/31		
	1950	*1951*	*1952*
Profit	$9,023	$10,109	$10,340

During the audit, you found the following:

	Year Ending 12/31		
Omission from the books:	*1950*	*1951*	*1952*
Item			
A Accrued expenses at end of year	$2,160	$2,904	$4,624
B Accrued income at end of year	200	—	—
C Prepaid expenses at end of year	902	1,210	1,406
D Deferred income at end of year	—	610	—
Goods in transit at end of year omitted from inventory:			
E For which purchase entry had been made	—	2,610	—
F For which purchase entry had not been made	—	—	1,710
Other points requiring consideration:			
G Depreciation of equipment had been recorded monthly by a charge to expense and a credit to an allowance for depreciation account at a blanket rate of 1% of end of month balances of equipment accounts. However, the sale during December 1951 of certain equipment was entered as a debit to cash and a credit to the asset account for the sale price of	—	5,000	—
(This equipment was purchased in July 1950 at a cost of $6,000.)			
H No allowance had been set up for uncollectible accounts. It is decided to set up one for the estimated probable losses as of December 31, 1952, for:			
1951 accounts	—	—	700
1952 accounts	—	—	1,500
and to correct the charge against each year so that it will show the losses (actual and estimated) relating to that year's sales.			

Accounts had been written off to expense as follows:

1950 accounts	1,000	1,200	—
1951 accounts	—	400	2,000
1952 accounts	—	—	1,600

INSTRUCTIONS: Following is a series of multiple-choice questions based upon the foregoing data. You are to select the *one* correct answer for each question. Assume that accruals of any year are reflected in the cash transactions of the following year and that prepayments of any year are reflected in the revenue or expense accounts of the following year. *Use printed answer sheet.*

a. Indicate on the answer sheet your choice by placing an X in the correct column to show the effect:

1. On 1950 profit of the omission of accrued expenses as of the end of 1950.
2. On 1951 profit of the omission of accrued expenses as of the end of 1950.
3. On 1952 profit of the omission of accrued expenses as of the end of 1950.
4. On 1951 profit of the omission of accrued expenses as of the end of 1950 and 1951, when considered together.
5. On 1950 profit of the omission of accrued income at the end of 1950.
6. On 1951 profit of the omission of accrued income at the end of 1950.
7. On 1952 profit of the omission of accrued income at the end of 1950.
8. On 1950 profit of the omission of prepaid expenses at the end of 1950.
9. On 1951 profit of the omission of prepaid expenses at the end of 1950.
10. On 1950 profit of the omission of prepaid expenses at the end of 1951.
11. On 1952 profit of the omission of prepaid expenses at the end of 1951 and 1952, when considered together.
12. On 1951 profit of the omission of deferred income at the end of 1951.
13. On 1952 profit of the omission of deferred income at the end of 1951.
14. On 1951 profit of the omission of goods in transit at the end of 1951.
15. On 1952 profit of the omission of goods in transit at the end of 1951.
16. On 1952 profit of the omission of goods in transit at the end of 1952.
17. On 1952 profit of the omission of goods in transit at the end of 1951 and 1952, when considered together.
18. On 1951 profit of the error in recording sale of asset.
19. On 1952 profit of the error in recording sale of asset.
20. On the cumulative three-year profits of the failure to use the "reserve" method in the yearly charges for uncollectible accounts.

b. Indicate the effect, if any, of the change from the charge-off to the reserve method as outlined in item H. Did the *change*
Decrease the reported profit,
Increase the reported profit, or
Have no effect on the reported profit
1. For the year 1950?
2. For the year 1951?
3. For the year 1952?

c. In the schedule provided on your answer sheet, compute the net adjustment of profit for the year 1951, filling in the *net* amount of the adjustment necessary for each item (A through H) in the problem.

d. Following are the data required for solving the remaining questions:
Assuming that your adjustments do not significantly change the profit figures for the three years, compute goodwill by each of the following four methods, based upon the uncorrected profits per books. (Assume net assets of $80,000 and a normal rate of return of 8%. No goodwill is on the books at present.)

Method 1—Purchase of past three years' excess profits.
Method 2—Payment equal to twice the average past excess profits.
Method 3—Difference between average past profits capitalized at 8% and present net assets.
Method 4—Capitalization of average excess profits at 25%.

1. Goodwill computed by method 1 is (a) $23,072, (b) $10,272, (c) no goodwill, (d) correct answer not given.
2. Goodwill computed by method 2 is (a) $7,649, (b) $6,848, (c) $3,824.50, (d) correct answer not given.
3. Goodwill computed by method 3 is (a) $67,720, (b) $42,800, (c) no goodwill, (d) correct answer not given.
4. Goodwill computed by method 4 is (a) $8,560, (b) $856, (c) no goodwill, (d) correct answer not given.

No. 2

You have been retained by a fire insurance adjustor to examine the records salvaged from a fire which almost completely destroyed the office and warehouse of A, B and C, partners in a wholesale jobbing business.

Your report, directed to the adjustor, must include an estimate of the inventory value as of the date of the fire, January 2, 1953.

The merchandise handled by the firm is divided into three lines or classes of goods, designated as X, Y and Z. Classes X and Y each consist of a number of items which are

bought and sold without change of form; Class Z consists of one item only for which raw material is bought and put through a manufacturing process.

The following records and data are found to be available:

1. Duplicate sales invoices and credit memos, the totals of which are as follows:

	Sales	*Credit Memos*
Year 1950	$122,785	$6,585
Year 1951	110,942	7,582
Year 1952	87,451	4,160

A check of the numbers discloses that approximately 9% of the duplicate sales invoices for 1952 are missing.

2. Duplicate bank deposit slips without any missing dates:

Year 1950	$108,066
Year 1951	96,008
Year 1952	91,150

Duplicate bank deposit slips were found to represent receipts from accounts receivable and cash sales only. You learn on inquiry that the partnership has made a practice of paying some expenses out of cash receipts not deposited. The amount of such payments cannot be determined.

3. Purchase invoice files, accompanied by adding machine tapes purporting to show the total purchases for each year, with totals as follows:

Year 1950	$131,616
Year 1951	117,935
Year 1952	76,158

4. Inventory sheets, taken by the management as of January 1, 1950:

Class X	$58,500
Class Y	28,080
Class Z—raw materials	17,550
—finished, 4/7 of which is raw material	16,380

The management stated that about 17% was added to the cost of merchandise and raw materials in the 1950 inventory to cover freight and handling. A comparison of some of the inventory prices with purchase invoices at about the date of the inventory confirmed this statement. You find, however, that *2% of net purchases* is sufficient to cover freight and handling into the warehouse and allow this percentage in *all cost computations.*

You ascertain also that 17% has been added to the cost of direct labor and overhead in the January 1, 1950 finished goods inventory, and that the overhead is 50% of the direct labor.

5. Upon examination of the contents of the purchase invoice files you find that credit memos representing allowances on purchases have been listed on the adding machine tapes as invoices and included in the totals, as follows:

Year 1950	$7,548
Year 1951	7,225
Year 1952	6,120

All suppliers of merchandise and materials are circularized with a request for an itemized statement of account for the last three years, and these statements show additional credit memos in the following amounts:

Year 1950	$1,751
Year 1951	3,128
Year 1952	5,610

6. Raw materials for Class Z are purchased in carload lots, and the invoices for the three years show total purchases of $33,000. You find that the shop foreman has kept a record showing that raw materials, of which the invoice cost was $34,000, have been put in process in the three years; and that the proportions of direct labor and overhead to material cost have been approximately maintained.

7. Analysis of a considerable number of sales invoices, selected in such a way as to give a fair sample of the entire file, and comparison with the computed cost of each item, give results which are summarized as follows:

	Per Cent of Net Sales	*Per Cent of Gross Profit to Net Sales*
Class X	45%	10%
Class Y	26%	15%
Class Z	29%	21%

Required:

You are to prepare computation of approximate inventory at January 2, 1953, including a schedule showing separately the raw materials and finished goods in Class Z. (Do not carry out any computations farther than the nearest dollar.)

No. 3

The partners of Sims and Company agreed to dissolve their partnership and to begin liquidation on February 1, 1953. Rowe was designated as the partner in charge of liqui-

dation. It was agreed that distributions of cash to the partners were to be made on the last day of each month during liquidation, provided that there was sufficient cash available.

The partnership agreement provided that profits and losses were to be shared on the following basis: Quinn 20%, Rowe 30%, Sims 30% and Toth 20%. The firm's condensed balance-sheet as of February 1, 1953 was as follows:

Cash	$33,440	Accounts payable	$ 7,120
Goodwill	20,000	Loan from Quinn	5,000
Other assets	44,510	Capital:	
		Quinn	8,040
		Rowe	32,160
		Sims	36,340
		Toth	9,290
	$97,950		$97,950

The liquidating transactions for February and March, other than cash distributions to partners, are summarized by months below:

	CASH	
	February	*March*
Liquidation of assets with a book value of:		
$22,020	$16,440	
14,950		$16,110
Paid liquidation expenses as incurred	2,740	2,460
Paid to creditors on account	5,910	1,210

Required:

Prepare a schedule showing the total amounts of cash distributed to the partners at the end of February and March and the amounts received by each partner in each distribution. Assume that Rowe made the distributions in such a manner that eventual overpayment to any partner was precluded.

No. 4

From the following data you are to compute the ***unit sales price*** (adjusted to the nearest full cent) at which the Howle Manufacturing Corporation must sell its only product in 1953 in order to earn a budgeted profit (before income taxes) of $60,000.

The corporation's condensed income statement for 1952 follows:

Sales (30,000 units)		$450,000
Returns, allowances and discounts		13,500
Net sales		$436,500
Cost of goods sold		306,000
Gross profit		$130,500
Selling expenses	$60,000	
Administrative expenses	30,000	90,000
Net profit (before income taxes)		$ 40,500

The budget committee has estimated the following changes in income and costs for 1953:

30% increase in number of units sold.
20% increase in material unit cost.
15% increase in direct labor cost per unit.
10% increase in production overhead cost per unit.
14% increase in selling expenses, arising from increased volume as well as from a higher price level.
7% increase in administrative expenses, reflecting anticipated higher wage and supply price levels. Any changes in administrative expenses caused solely by increased sales volume are considered immaterial for the purpose of this budget.

As inventory quantities remain fairly constant, the committee considered that, for budget purposes, any change in inventory valuation can be ignored. The composition of the cost of a unit of finished product during 1952 for materials, direct labor and production overhead, respectively, was in the ratio of 3 to 2 to 1. No changes in production methods or credit policies were contemplated for 1953.

No. 5

a. Rearrange the following balance-sheet of the Town of W in acceptable form for municipal reporting:

BALANCE-SHEET—JUNE 30, 1953

Assets

Current:		
Cash	$ 50,000	
Taxes receivable (including special assessments $80,000)	100,000	
Supply inventories	10,000	
Investments of trust funds	30,000	$ 190,000
Fixed:		
Land	100,000	
Buildings	800,000	
Equipment	50,000	950,000
		$1,140,000

Liabilities

Current:		
Accounts payable		$ 10,000
Fixed:		
General obligations bonds payable	$350,000	
Special assessment bonds payable	75,000	425,000
Fund Equities:		
General fund	$ 35,000	
Trust funds	40,000	
Bond fund	25,000	
Special assessment fund	5,000	
Capital fund	600,000	705,000
		$1,140,000

b. The Town of W, for which the balance-sheet was prepared in part (a), will use budgetary accounts. You are to prepare the balance-sheet for its General Fund at the end of its first month of operation in its fiscal year starting July 1, 1953. The following events are to be considered:

1. A budget was adopted which provided for property taxes of $210,000 for general municipal purposes and for estimated revenue from fees, etc. of $23,000. Appropriations were $180,000 for current operations, $20,000 for debt service and $35,000 for street and other capital improvements.
2. During July purchase orders of $9,400 were placed, $3,150 of which were received and vouchered at an actual net cost of $3,078. Payroll amounting to $5,185 was vouchered and $14,000 of accounts payable were paid.
3. The tax roll was not completed; but $21,000 of 1952–53 taxes were collected, $18,350 of which were special assessments. Also, $466 of delinquent taxes and penalties were collected. These taxes had been written off and no amount was in the current budget for such collections. Miscellaneous fees, etc. collected amounted to $2,060.
4. Inventory of supplies at the end of the month was $10,400.

(Solutions given on following pages)

Solution to Problem 1

Part a.

Number	Effect on Profits		
	Over-stated	Under-stated	No effect
1	X		
2		X	
3			X
4	X		
5		X	
6	X		
7			X
8		X	
9	X		
10			X
11		X	
12	X		
13		X	
14		X	
15	X		
16			X
17	X		
18		X	
19		X	
20	X		

Part b.

No.	Answer
1.	Decrease
2.	Decrease
3.	Increase

Part c.

Item	Net Effect on 1951 Profit	
	Increase	Decrease
A	$	$ 744
B		200
C	308	
D		610
E	2,610	
F	0	0
G	30	
H		1,500
Total	$2,948	$3,054
Net		$ 106

Part d.

No.	Answer
1.	b
2.	b
3.	b
4.	d

Solution to Problem 2

COMPUTATION OF INVENTORY OF
CLASS X AND CLASS Y
JANUARY 2, 1953

Inventory—January 1, 1950 (per inventory sheets):		
Class X	$ 58,500.00	
Class Y	28,080.00	$ 86,580.00
Less addition of 17% for freight		12,580.00
Invoice cost		$ 74,000.00
Add allowance for freight and handling (2%)		1,480.00
Adjusted inventory—January 1, 1950		$ 75,480.00

Purchases:		
Total (per tapes)	$325,709.00	
Overstatement of above tapes	20,893.00	
Adjusted total	$304,816.00	
Less: Credit memos on hand	$ 20,893.00	
Additional credits	10,489.00	
Total credits	$ 31,382.00	
Net purchases—total	$273,434.00	
Less purchases of Class Z raw material	33,000.00	
Net purchases of Class X and Class Y	$240,434.00	
Add freight and handling allowance (2%)	4,809.00	$245,243.00
Total Goods		$320,723.00

Less Cost of Goods Sold:

Net Sales:

Year	*Total*	*Class X*	*Class Y*	*Class Z*	
1950	$116,200.00	$ 52,290.00	$30,212.00	$33,698.00	
1951	103,360.00	46,512.00	26,874.00	29,974.00	
1952	91,940.00	41,373.00	23,904.00	26,663.00	
Total	$311,500.00	$140,175.00	$80,990.00	$90,335.00	
Gross profit rate		(10%)	(15%)	(21%)	
Gross profit		$ 14,018.00	$12,149.00	$18,970.00	
Total cost of goods sold		$126,157.00	$68,841.00	$71,365.00	
Cost of Class X and Class Y goods sold					$194,998.00
Estimated inventory of Class X and Class Y—1-2-53					$125,725.00

Note: The sales for 1952 were estimated on the assumption that the missing sales invoices accounted for 9% of the total sales for 1952. Therefore, $87,451.00 is equal to 91% of total sales for 1952 or $96,100.00. Net sales are $96,100 less $4,160.00 or $91,940.00.

Computation of Class Z Inventories, January 1, 1950

	Raw Material	*Finished Goods*
Class Z inventory—1-1-50	$17,550.00	$16,380.00
Less: Freight and handling cost added by firm	2,550.00	2,380.00
Invoice cost	$15,000.00	$14,000.00
Allowance for freight and handling:		
On raw material 2% of $15,000	300.00	
On finished goods 2% of $8,000		160.00
Adjusted inventories—1-1-50	$15,300.00	$14,160.00

Computation of Raw Material Inventory at January 2, 1953

Inventory—raw material—Class Z—1-1-50		$15,300.00
Purchases—per invoices		33,000.00
Add: Freight and handling (2% of $33,000)		660.00
Total goods—Class Z raw material		$48,960.00
Issued to production:		
At invoice cost	$34,000.00	
Add: Freight and handling (2%)	680.00	34,680.00
Inventory of Class Z raw material at 1-2-53		$14,280.00

COMPUTATION OF CLASS Z INVENTORY AT JANUARY 2, 1953

Finished goods inventory—1-1-50		$14,160.00
Raw material processed:		
At invoice cost	$34,000.00	
Freight and handling	680.00	$34,680.00
Direct labor (50% of raw material)		17,000.00
Overhead (50% of direct labor)		8,500.00
Total Processed goods (Class Z)		$74,340.00
Cost of goods sold		71,365.00
Inventory of Class Z at 1-2-53		$ 2,975.00

SUMMARY OF ESTIMATED INVENTORIES, JANUARY 2, 1953

Class X and Class Y	$125,725.00
Raw material for Class Z	14,280.00
Class Z (work in process and finished goods)	2,975.00
	$142,980.00

Solution to Problem 3

SIMS AND COMPANY
STATEMENT OF PARTNERS' ACCOUNTS
FEBRUARY 1, 1953 TO MARCH 31, 1953

	Quinn Capital	*Quinn Loan*	*Rowe Capital*	*Sims Capital*	*Toth Capital*	*Total*
Balances, February 1, 1953	$8,040.00	$5,000.00	$32,160.00	$36,340.00	$9,290.00	$90,830.00
Liquidation loss and expenses	1,664.00		2,496.00	2,496.00	1,664.00	8,320.00
Balances	$6,376.00	$5,000.00	$29,664.00	$33,844.00	$7,626.00	$82,510.00
Casy payment—February		2,660.00	16,590.00	20,770.00		40,020.00
Balances	$6,376.00	$2,340.00	$13,074.00	$13,074.00	$7,626.00	$42,490.00
Liquidation gain and expenses	260.00		390.00	390.00	260.00	1,300.00
Balances	$6,116.00	$2,340.00	$12,684.00	$12,684.00	$7,366.00	$41,190.00
Cash payment—March	608.00	2,340.00	4,422.00	4,422.00	1,858.00	13,650.00
Balances, March 31, 1953	$5,508.00		$ 8,262.00	$ 8,262.00	$5,508.00	$27,540.00

COMPUTATION OF CASH PAYMENTS TO PARTNERS—
FEBRUARY, 1953 AND MARCH, 1953

February	*Quinn Capital*	*Quinn Loan*	*Rowe Capital*	*Sims Capital*	*Toth Capital*	*Total*
Balances, after losses and expenses	$6,376.00	$5,000.00	$29,664.00	$33,844.00	$7,626.00	$82,510.00
Greatest possible loss (assets remaining to be liquidated)	8,498.00		12,747.00	12,747.00	8,498.00	42,490.00
Balances	$2,122.00*	$5,000.00	$16,917.00	$21,097.00	$ 872.00*	$40,020.00
Offset	2,122.00	2,122.00*				
		$2,878.00	$16,917.00	$21,097.00	$ 872.00*	$40,020.00
Distribution of Toth deficit to Quinn 2/8, Rowe 3/8, Sims 3/8.		218.00*	327.00*	327.00*	872.00	
Cash payments, February		$2,660.00	$16,590.00	$20,770.00	$	$40,020.00
March						
Balances, after gain and expenses.	$6,116.00	$2,340.00	$12,684.00	$12,684.00	$7,366.00	$41,190.00
Greatest possible loss	5,508.00		8,262.00	8,262.00	5,508.00	27,540.00
Cash payments, March	$ 608.00	$2,340.00	$ 4,422.00	$ 4,422.00	$1,858.00	$13,650.00

* Red.

Solution to Problem 4

Computation of Budgeted Net Sales

Raw material:	
$153,000.00×1.2×1.3	$238,680.00
Direct labor:	
$102,000.00×1.15×1.3	152,490.00
Production overhead:	
$51,000.00×1.1×1.3	72,930.00
Cost of goods sold	$464,100.00
Selling expenses:	
$60,000.00×1.14	$ 68,400.00
Administrative expenses:	
$30,000.00×1.07	32,100.00
Total cost	$564,600.00
Net profit (before income taxes)	60,000.00
Net sales	$624,600.00

The selling price per unit in 1952 was $15.00 for 29,100 units. An increase of 30% in units sold in 1953 will increase the volume to 37,830 units.

If the net sales amount to $624,600.00 for 37,830 units, the unit sales price will be $16.51.

Solution to Problem 5

Town of W
Balance Sheet of Funds
June 30, 1953

(a)

ASSETS		*LIABILITIES AND EQUITIES*	
	General Fund		
Cash	$ 15,000.00	Accounts payable	$ 10,000.00
Taxes receivable	20,000.00	Fund balance	35,000.00
Supply inventory	10,000.00		
	$ 45,000.00		$ 45,000.00
	Special Assessment Fund		
Assessments receivable	$ 80,000.00	Bonds payable	$ 75,000.00
		Fund balance	5,000.00
	$ 80,000.00		$ 80,000.00
	Trust Fund		
Cash	$ 10,000.00	Fund balance	$ 40,000.00
Investments	30,000.00		
	$ 40,000.00		$ 40,000.00
	Bond Fund		
Cash	$ 25,000.00	Fund balance	$ 25,000.00
	Bonded Debt Fund		
Deferred charge to future taxation	$350,000.00	Bonded debt	$350,000.00
	Capital Fund		
Land	$100,000.00	Fund balance	$950,000.00
Buildings	800,000.00		
Equipment	50,000.00		
	$950,000.00		$950,000.00

Town of W
Balance Sheet—General Fund
July 31, 1953

ASSETS

Cash		$ 6,176.00
Taxes receivable		17,350.00
Supplies		10,400.00
Estimated 1953–1954 revenue	$233,000.00	
Less fees collected	2,060.00	230,940.00
		$264,866.00

LIABILITIES AND EQUITY

Accounts payable		$ 4,263.00
Appropriations for 1953–1954	$235,000.00	
Less: Appropriation Expenditures	$ 7,863.00	
Appropriation Encumbrances	6,250.00	
	$ 14,113.00	220,887.00
Reserve for encumbrances		6,250.00
Fund balance		33,466.00
		$264,866.00

Correction

In the review of Charles S. Rockey's *Accountant's Office Manual*, in the January, 1953, Accounting Review, it was incorrectly stated that "Mr. Rockey's confirmation request forms in most instances provide for signature by the auditor" in contrast to the usual method of sending such forms over clients' signatures. Mr. Rockey's forms do follow the usual procedure. The error arose from an unintended misreading of the reproduced forms in the book for which we extend our apologies to Mr. Rockey.

ASSOCIATION NOTES

E. Burl Austin

GREAT BRITAIN

The 4th Residential Summer School of the Institute of Cost and Works Accountants was held in September at St. Catharine's College, Cambridge.

HAWAII

University of Hawaii:

Samuel Cho has been appointed special lecturer in accounting.

Lee Glover has been appointed Chairman of the Department of Economics and Business.

DISTRICT OF COLUMBIA

The Federal Government Accountants Association recently named as its president Andrew Barr, of the Securities and Exchange Commission. Other officers named were: L. W. Acker, Harold R. Gearhart, Norman R. Burton, and John C. Cooper.

Catholic University of America:

Richard J. Bannon has resigned to join the staff at De Paul University.

Nathan Lacher has been appointed lecturer in accounting.

ALABAMA

The Alabama Society of Certified Accountants has named as its officers for the coming year F. W. Nichols, Birmingham, John Borden, Montgomery, John Gay, Mobile, and Chris King, Birmingham.

The Birmingham Chapter, NACA, recently elected as officers for the coming year the following: Harvey M. Snook, Marshall H. Osburn, Frank H. Gafford, Henry G. Wesley, and David R. Clements. M. F. Barno was made director of publicity.

CALIFORNIA

University of California:

Olof Lundberg, University controller and lecturer in accounting, died suddenly during the summer.

Reed Storey and Waino Suojanen have been appointed associates in accounting for the current year.

David Solomons, reader in accounting at the London School of Economics, will be Visiting Associate Professor of Accounting in the spring term.

Leonard A. Doyle and Maurice Moonitz were recently promoted to the rank of professor. Moonitz is Vice-Chairman of the Department of Business Administration, replacing W. L. Crum, who is on leave.

Perry Mason is on leave for the fall term to assist on a full-time basis on the Association's price-level research project.

Los Angeles State College:

Mary E. Murphy, currently on leave as Fulbright Lecturer in Accounting in Australia, arrived there in February and has visited most of the universities under a program which involves lecturing in all Australian universities, rather than one, which is the usual Fulbright arrangement. She has delivered addresses on numerous subjects before the Institute of Chartered Accountants in Australia and other professional groups. She was expecting to return to the United States before the first of the year.

COLORADO

University of Denver:

The Annual Tax Institute was held in October, co-sponsored by the Colorado Society of CPA's. Outstanding speakers included Arthur L. Baldwin, Marriner S. Eccles, Albert J. Gould, James E. Hammond, Stephen H. Hart, Jerome J. Kesselman, Arthur O. Palm, Sanford Stoddard, and Virgil S. Tilly.

FLORIDA

Stetson University:

The course offerings of the School of Business are being expanded.

D. M. Beights, formerly consultant in the State Auditing Department, has joined the teaching staff.

A short course for junior accountants and CPA candidates was recently sponsored here by the local chapter of the Florida Institute of CPA's, and was most successful.

University of Florida:

William F. Moshier has been appointed associate professor. He was formerly a member of the accounting staff, but resigned in 1951 to become assistant controller of the University.

ANDREW P. ORTH has been appointed assistant professor to fill the vacancy created by the leave of absence of GEORGE SUMMERHILL, who is doing graduate work at Duke University.

MABLE D. MILLS has been appointed instructor.

NED H. SCOTT, a successful CPA candidate, recently resigned to accept private employment.

JACK L. CODDING has resigned to enter public accounting in Sarasota.

WILLIAM D. PARKER has resigned to enter the practice of law in Sarasota.

WILLIAM R. MATTHIES and DELMAS D. RAY are on leave of absence doing graduate work.

JAMES F. MOORE passed the CPA examination in May and has been promoted to assistant professor.

The 4th Graduate Accounting Conference, co-sponsored with the Florida Institute of CPA's, met on the campus in September and was attended by the largest group in its history.

ILLINOIS

Northwestern University:

STEWART MCMULLEN has returned to the University after a year's leave of absence.

MICHIGAN

Michigan State College:

J. G. CARTER and W. G. KELL have resigned, CARTER to enter private practice, and KELL to teach at Syracuse University.

B. F. ASCHBACHER has been appointed assistant professor, and C. P. WOODS has been appointed instructor.

Committee appointments in the Michigan Association of CPA's include BRUCE FUTHEY, Personnel; B. C. LEMKE, Relations with Educators; and J. W. RUSWINCKEL, Professional Education.

J. D. EDWARDS, who received his Ph.D. from the University of Texas in June, has been promoted to assistant professor.

In April, the School of Business became a member of the American Association of Collegiate Schools of Business. Beginning with the current quarter, work leading to the Ph.D. in accounting will be given.

University of Michigan:

ALBERT H. COHEN left the staff in October to assist the Committee on Federal Taxation of the American Institute of Accountants.

DAVID A. THOMAS has left to become assistant professor of accounting at Cornell University.

Three teaching fellows have joined the staff and are working on the Ph.D., as follows: HAROLD BIERMAN, JR., formerly of Louisiana State University; WILLIAM H. CULP, and A. W. PATRICK, both of whom have been working in public accounting.

H. F. TAGGART has been appointed to the Professional Council on Federal Financial Administration.

WILLIAM A. PATON appeared before various professional groups for over 40 talks during the academic year.

HERBERT MILLER spent the summer working in public accounting.

MONTANA

Montana State University:

E. J. DEMARIS addressed the annual convention of the Montana Society of Public Accountants on the subject "Public Accountants and the State University."

DON J. EMBLEN served in August and September under the Faculty Fellow Program of the American Securities Business in New York.

NEW MEXICO

University of New Mexico:

R. E. STRAHLEM has resigned to become comptroller for the State Highway Commission.

NEW YORK

City College of New York

NATHAN SEITELMAN has been promoted to associate professor

EMANUEL SAXE was appointed to the Commission on Standards of Education and Experience for CPA's.

New York University:

MICHAEL SCHIFF has been promoted to the rank of professor.

Long Island University:

HYMAN R. GOLDBERG has been promoted to assistant professor.

WILLIAM F. GAMER resigned to contribute all his time to public accounting.

NORTH CAROLINA

Duke University:

MARTIN L. BLACK is currently serving as editor of the *Cooperative Accountant*, the official publication of the National Society of Accountants for Cooperatives.

OHIO

John Carroll University:

DONALD E. ROARK, of Indiana University, has been appointed assistant professor.

Wayne University:

EDWARD G. ERIKSEN has been promoted to the rank of associate professor.

Xavier University:

BERL G. GRAHAM, President of the Ohio State Board of Accountancy, recently addressed the Xavier Accounting Society at its first annual dinner meeting in 1952. The topic of his speech was "Interim Audit Procedure." Other guests included STANLEY A. HITTNER of the American Institute of Accountants, FREDERIC A. POWERS, Secretary of the Ohio Society of CPA's, and WALTER KINKEAD, President of the Cincinnati Chapter, NACA.

RUSSELL J. WALKER recently passed the Ohio CPA examination.

OKLAHOMA

University of Oklahoma:

The Fourth Annual Tax Conference was held in November, and featured the following speakers: OSCAR R. DAVIS, WILL T. WRIGHT, EDWIN B. BURCH, J. ROBERT COURTNEY, EDWARD L. ALLISON, JOHN H. MILLER, A. H. DEGENER, KENNETH G. MILLER, EARL EBERHART, BYRON MOORE, OLIVER CATES and ROSS WARNER.

PENNSYLVANIA

Lehigh University:

CARL L. MOORE has returned from an absence of two years spent in completing experience requirements for his CPA certificate and as assistant professor at Detroit University.

Duquesne University:

V. A. GRIECO has resigned to join Westinghouse Electric Company, but will continue as part time lecturer in evening classes.

University of Pittsburgh:

EDWIN H. BALDRIGE and FREDERICK A. SCHWARZ have resigned from the staff.

WILLIAM W. FRASURE and WILLIAM E. COLESAR have returned to the staff from two years' leave, the former with the U. S. Navy, and the latter with Price Waterhouse & Co.

New lecturers in accounting in the evening division, all CPA's and all members of Beta Gamma Sigma, are GEORGE O. TONKS, JAMES C. MCFADYEN, WALTER J. HANK, EDWIN H. BALDRIGE, and WILBERT H. SCHWOTZER.

S. F. JABLONSKI spoke to the Erie chapter of NACA in September.

Recent promotions include FRANK N. WILLETTS to associate professor, and L. A. WERBANETH, JR. to assistant professor.

JAMES H. ROSSELL has been appointed chairman of the committee on education of the Pittsburgh Chapter of the Pennsylvania Institute of CPA's.

SOUTH DAKOTA

University of South Dakota:

HARRY E. OLSON has been reappointed for another 3-year term on the State Board of Accountancy.

TENNESSEE

University of Chattanooga:

JAMES B. FOXWORTH has resigned to work on his Ph.D. at Columbia University where he will also teach part time. Replacing FOXWORTH is NORMAN DRESSEL, who has been doing graduate work at New York University.

University of Tennessee:

WILLIAM T. CHAFFIN has resigned to enter public accounting.

KARL W. SHARP has been appointed instructor.

VERN H. VINCENT spoke before the Institute, sponsored by the Tennessee Valley Public Power Association.

FOREST C. CARTER spoke recently before the Knoxville Chapter of NACA, of which he is a member of the Board of Directors.

WILLIAM C. HENRY and VERN H. VINCENT also appeared with Carter before the same group on the subject of "Direct Costing."

W. H. READ appeared recently before the Knoxville Chapter of the Tennessee Society of CPA's.

TEXAS

Baylor University:

JAMES GOODWIN has left his position as associate professor to enter private practice in Waco, and has been retained as a part-time instructor.

EMERSON HENKE completed work on his D.C.S. degree at Indiana University during the summer.

Texas Technological College:

WILLIAM E. WHITTINGTON is on leave of ab-

sence to complete his Ph.D. at the University of Illinois.

VIRGINIA

University of Richmond:

SAMUEL H. BAKER has been elected vice president of the Virginia Association of Public Accountants.

WYOMING

University of Wyoming:

JEAN F. MESSER is serving as acting head of the department during the leave of absence of WALTER E. DANIELS.

MARVIN E. BYERS has been promoted to assistant professor.

JEAN F. MESSER recently passed the CPA examination.

BOOK REVIEWS

ARTHUR M. CANNON *Editor*
Accounting and Auditing

CPA Handbook. (New York: American Institute of Accountants, 1952 and 1953. 2 vols. and supplement, approx. 2,200 pages. $27.00.)

The *CPA Handbook* was compiled by a committee of the American Institute of Accountants. It contains 27 chapters: Chapters 1 to 13 in Volume I (published in 1952), Chapters 14 to 25 in Volume II (published in 1953), and Chapters 26 and 27 in the Supplement. The division between the material included in Volume I and that included in Volume II is not functional, but is the result of the physical limitations of a single volume. Each chapter was prepared by a different author. Each chapter has its own page sequence, thus permitting the sale of individual chapters and presumably facilitating piecemeal revision in the future. Copies of individual chapters are available at prices varying from $.50 to $2.50; the Supplement, *Duties of Junior and Senior Accountants*, is available as a separate publication at a price of $3.00.

A considerable portion, perhaps one half, of the *Handbook* consists of material included in the appendixes; such material includes the pronouncements of the American Institute committees on accounting procedure and auditing procedure, statements of the American Accounting Association on accounting concepts and standards, and numerous illustrative office forms, questionnaires, and the like. In view of the fact that the *Handbook* is primarily intended to be used as a reference book, the inclusion therein of information of this nature adds immensely to its usefulness.

It should be borne in mind that while the material included in the *Handbook* has been carefully edited, as is pointed out in the Preface, "The contents, except for that reproduced from previous Institute publications, have not been approved by the Institute or by any of its committees. Users of the *Handbook* should remain aware of the personal nature of the views expressed, which may or may not coincide with the views and practices of a majority of the Institute membership." While the foregoing admonition must necessarily be the official position of the Institute, nevertheless it is obvious that the material included in the *Handbook*, which is not only the product of the authors, but also of many consultants and others, is professional literature of the highest order. The accounting profession is deeply indebted to all those who contributed to the preparation of the *Handbook*, which contributions, incidentally, were made without thought of personal financial gain.

Chapter 1 includes a discussion of the purposes of the *Handbook* and should be read by those who wish to obtain maximum usefulness from the remainder of the book.

Chapters 2 through 6 discuss the development of an accountant's practice from its inception. Included in Chapter 2 on building and keeping a clientele is an excellent discussion of the problems incident to the puchase of a practice. In Chapter 3 on accountants' partnership agreements the author appropriately points out that the time to prepare a partnership agreement covering all essential provisions is at the outset when the "will to agree" is strongest; for this purpose there is included an appendix consisting of a checklist of major points which require consideration in an accounting partnership agreement. Chapter 4 covers professional organizations and literature with an appendix listing a recommended 100-volume library. Chapter 5 discusses practical applications of professional ethics and is written by the author of the well-known book in this field "Professional Ethics of Public Accounting." Chapter 6 on legal responsibility and civil liability is without doubt the most competent and thorough discussion of the subject presently available; any accountant who thinks that this chapter is for the other fellow and not for himself is indeed short-sighted.

Chapters 7 through 12 are involved primarily with matters relating to the internal operations of an accountant's office. Inasmuch as one of the basic purposes of the *Handbook* is to make information available to practitioners based upon the experiences of others in the profession, this section of the *Handbook* becomes particularly useful to local practitioners. Chapter 7 on office organization and records includes considerable data obtained by the use of questionnaires sent to a number of small, medium, and large accounting firms and also, in an appendix, a number of illustrative forms used in the administration of an accountant's office.

In Chapter 8 the subject of office procedures for correspondence and reports is discussed accompanied by an appendix consisting of a specimen style manual for report writers, typists, and stenographers of a public accounting office. The subject of staff selection and training is discussed in Chapter 9 with illustrative personnel forms, personnel manual, and staff manual included in the appendixes. Chapter 10 covers staff compensation and utilization with an appendix consisting of a list of 300 substantial companies having fiscal years other than the calendar year—evidence that the philosophy of the natural business year has many adherents. In Chapter 11 procedures for technical supervision and review of work are discussed with illustrative questionnaires being included in the appendixes. Chapter 12 deals with the all-important topic of fees to be charged to clients for professional services rendered.

Chapters 13 through 20 relate to auditing and accounting services normally rendered by certified public accountants. Chapter 13 discusses professional standards, including auditing standards. Chapter 14 covers the planning and control of audit procedures, with illustrative audit programs being included in the appen-

dixes. Audit working papers are discussed in Chapter 15, with illustrative audit working papers being incorporated in the appendix. In Chapter 16 various aspects of internal control are discussed, with illustrative questionnaires for evaluation of internal control being included therein. The subject of accounting principles and their application is covered in Chapter 17. Chapters 18 and 19 cover financial statement presentation and report writing, respectively, with appropriate illustrative material being incorporated therein. Chapter 20 discusses some of the special problems of approximately fifteen specific businesses.

In Chapter 13 on professional standards it is suggested, in the discussion on accounting principles, that it probably would be better, in observing the standards of reporting, to limit the use of the term "generally accepted accounting principles" to the financial statements of business enterprises organized for profit, "at least until subsequent developments more clearly establish its use in other connections." In Volume I of *College and University Business*, the authoritative manual in the field of college and university accounting compiled by The National Committee on the Preparation of a Manual on College and University Business Administration with the cooperation of the American Institute of Accountants' committee on college and university accounting, it is suggested that the certificate or opinion of the independent certified public accountant with respect to college and university audits might well follow the standard form recommended by the American Institute of Accountants. Since the publication of Volume I of the *CPA Handbook* the Restatement and Revision of Accounting Research Bulletins (Bulletin No. 43) has been issued containing a statement of applicability of the bulletins wherein it is stated that the bulletins are primarily applicable to business enterprises organized for profit. With this clarifying statement it is hoped that those accountants who heretofore have been reluctant to use the expression "generally accepted accounting principles" in reporting on their examinations of the accounts of colleges and universities will now feel free to do so.

Chapters 21 through 25 deal with services other than audits rendered by professional accountants. Tax practice is discussed in Chapter 21 and the development of accounting systems is discussed in Chapter 22. Chapter 23 covers cost accounting and cost control and Chapter 24 covers special investigations. In Chapter 25 is discussed the broad field of consulting and advisory services, which is probably the least-defined area of the professional accountant's services and one which, to the accountant endowed with considerable imagination and business acumen, offers opportunities for increased services to clients.

Duties of *Junior and Senior Accountants*, a Supplement to the *CPA Handbook* (Chapters 26 and 27), ordinarily would warrant a review of its own. This volume originated with a series of articles in *The Journal of Accountancy* in 1917 and, through successive revisions, has been an integral part of the literature of the profession ever since. Considering the fact that *Duties of The Senior Accountant* was written in 1932 and *Duties of The Junior Accountant* was last revised in 1933 and the developments which have taken place since these books were written, it is appropriate that these publications should be brought up to date; their inclusion in the *CPA Handbook* adds to its usefulness.

In *Duties of Junior and Senior Accountants* the present authors have approached their subjects in a manner different from that of the earlier works. A new feature of *Duties of The Junior Accountant* is the inclusion of twelve illustrative work sheets. An appendix consisting of *Audits by Certified Public Accountants* is included. This Supplement should be helpful to a new generation of readers among staff accountants.

Despite the fact that each chapter is written by a different author, the material included in the *Handbook* is well integrated and cross-referenced. Many of the chapters have their own selected bibliography. It is understood that an index is being prepared (one index will serve both volumes); the Supplement has its own index.

This reviewer is engaged in public practice and therefore is not in a position to evaluate the *CPA Handbook* for teaching purposes. However, anyone who purports to be informed with respect to accounting literature, whether he be a practitioner, teacher, or student, should not only read the *Handbook*, but keep it handy for reference purposes.

RALPH S. JOHNS
Haskins & Sells

Chicago

C.P.A. Problems and Questions in Theory and Auditing and *Solutions to CPA Problems*. Fourth Edition. Jacob B. Taylor and Hermann C. Miller. (New York: McGraw-Hill Book Co., Inc., 1953. Pp. viii, 640; 497. $7.00; $7.50.)

The Fourth Edition of *C.P.A. Problems and Questions in Theory and Auditing* consists of 233 problems culled chiefly from C.P.A. examinations given during the period from May 1939 through November 1949; an additional 38 problems appearing as an appendix and comprising the content of the Accounting Practice section of the examinations given during the period May 1950 through May 1952; 283 questions on Accounting Theory; 175 questions on Auditing; and the Theory, Auditing, and Commercial Law questions appearing on the May 1952 examination.

The problems are taken from the uniform examinations prepared by the Board of Examiners of the American Institute of Accountants and from the separate examinations prepared by the States of New York, Ohio, Wisconsin, Maryland, Illinois, Pennsylvania, and Kentucky before these states adopted the Institute examinations. Of the 271 problems presented, 146 are taken from the Institute examinations. Today, of course, all states use the examinations prepared by the Board of Examiners of the Institute.

The companion solutions book, *Solutions to C.P.A. Problems*, presents the solutions prepared by the authors for the 233 problems selected from the examinations given through November 1949. Solutions are unavailable for the problems in the appendix, nor are answers provided for the questions in Theory and Auditing.

The problems and questions are classified by accounting topics. The range of problems, presented in accordance with the group classifications set up by the authors, follows:

I. Financial and Operating Statements—Their Preparation, Revision and Analysis
   37 problems, consisting of 24 on Preparation, Revision, and Correction of Statements, 6 on Analysis of Statements, and 6 on the Statement of Funds.

II. Types of Organizations
   53 problems, consisting of 7 on Sole Proprietorship and Single Entry, 19 on Partnerships in its various phases, and 27 on Corporations.

III. Mergers and Consolidations
   28 problems, consisting of 7 on Mergers and Consolidations, and 21 on Consolidated Statements.

IV. Special
   115 problems, consisting of 3 problems on Banks and Brokerage, 6 on Budgets, 11 on Retail, Branch, and Consignment Accounting, 40 on Cost Accounting, 15 on Estate Accounting and Liquidation of Commercial Concerns, 14 on Governmental and Institutional Accounting, 5 on Real Estate-Contractors' Accounting, 6 on Valuation of Fixed Assets, and 8 problems classified as miscellaneous.

The book on the whole gives proper emphasis to problem types. The relatively large number of problems presented on Cost Accounting, Consolidated Statements, and Municipal and Institutional Accounting is warranted by the recurrence of these types of problems on the examinations. The problems are, for the most part, rather long, attesting to the character of the Institute examinations during the time period from which the problems were selected.

The book fails to express, through no fault of the authors, two trends which have matured since 1949. These are the appearance in the C.P.A. examinations of (1) Federal income tax problems, and (2) short problems requiring less than one hour to solve. Aside from these shortcomings, the variety and representativeness of the problems are excellent.

The reviewer has tested in some degree the solutions in the companion Solutions book and has found them to be systematically developed and complete. The solutions are, on the whole, well-knit and the forms of presentation concise and logical. The problem requirements are faithfully complied with. The major statements and exhibits are supported by pertinent schedules so that the solutions are readily understood.

The instructor will find the companion volumes extremely valuable for use in an advanced course beyond the intermediate level or in preparing candidates for the C.P.A. examinations.

Joseph A. Mauriello
Associate Professor of Accounting
New York University

Fundamentals of Accounting. Third Edition. Perry Mason and Sidney Davidson. (Brooklyn: The Foundation Press, Inc., 1953. Pp. x, 516+385. $5.75.)

The qualities of a first year accounting text can best be analyzed in terms of the nature and objectives of the course for which the book is to be used. For example:

(1) At what level is the course given—freshman, sophomore, etc?

(2) Is it primarily a terminal course for non-accounting majors, or is it primarily a first course for accounting majors?

(3) Does it emphasize the logic or theory which underlies accounting or is the emphasis upon the procedural aspects of the subject?

(4) Is it pointed exclusively toward financial accounting or does it recognize the many important management uses of accounting information?

Too frequently, in recent years, authors (or their publishers) have indicated either by outright statement or by implication that their books will meet rather well the requirements of *all* first courses in accounting. Particularly irritating to the reviewer is the rather common claim in the preface that major emphasis is given to "the managerial aspects of accounting," with no further reference in the whole book to the really significant uses of accounting information by management.

The instant case is a refreshing exception. In the preface the authors state definitely that this book "is not intended for use at the freshman level or where the major emphasis is upon the procedural aspects of accounting." Positively, they state that "it [this book] is relatively thorough in its exploration of the logic or theory which underlies bookkeeping and accounting" and that "at the same time, an attempt has been made to present the problems of accounting in their modern setting as to bookkeeping forms and procedures, payroll taxes, income taxes, terminology and recent developments in professional standards and practices."

In the opinion of the reviewer the foregoing is a fair statement of the place of this book in accounting education. It is one of the few books that should achieve satisfactory results in the usual first course which must serve both as an introductory course for accounting majors, and a terminal course for non-accounting majors. It should also be adaptable to a special course for students outside the School of Business.

In many respects this book departs substantially from the pattern of the "typical" first year book, not so much in content and over-all coverage, but in approach, sequence, and relative emphasis.

In chapter 4, before any discussion of revenue and expense accounts, there is introduced a fairly comprehensive problem involving accounting for manufacturing operations—with no sales transactions. Thus the differentiation is made between production activities and selling activities—and the important distinction between cost and expense. In this book there are no expense accounts in production operations! Manufacturing situations are used frequently in illustrative problems throughout the book. No expense and income transactions are introduced until after operating accounts have been explained; hence the student is not taught (temporarily) to record an expense as a direct charge to a proprietorship account.

Cost accounting is given considerable emphasis. In addition to frequent reference to manufacturing activities and a chapter on manufacturing accounts and statements, there are two chapters on cost accounting—elementary but comprehensive—including the essential features of standard costs.

Relatively less *space* is devoted to "bookkeeping"—special books of original entry, and special ledgers—than in most other first year books, but the coverage of the principles involved is quite complete. There is little isolation of sole proprietorship, partnership, and corporation accounting problems. Examples involving each of these typical business forms are used throughout the book. To the less mature student, this latter point may cause some confusion.

The organization of the material in this third edition is very similar to that of the first two editions. However a few important changes have been made. These changes are summarized by the authors in the preface:

> "The principal change in arrangement has been the addition of an introductory chapter which contains some of the material formerly presented in chapters entitled 'The Place of Accounting in the Social Order' and 'The Field of Accounting.' An appendix chapter on 'Accounting Requirements of Federal Income Taxation' has been omitted and the material on business organization and methods, presented in an appendix in the first two editions, has now been assigned to appropriate sections of the text.
>
> "Increased attention is given in this edition to the analysis and interpretation of financial statements. Chapter 28 is largely devoted to the explanation and illustration of statements of sources and applications of funds. The material on statement analysis and interpretation in chapter 29 has been expanded and the ratio analysis is presented in terms of the use to be made of the ratios, rather than in terms of their source."

A very valuable part of this text is the wealth of carefully designed problems. Each chapter has two sets of problems: shorter "Questions and Problems" for classroom use, and longer "Laboratory Problems" for outside assignments.

The chief adverse criticism is that this text *may* be somewhat advanced for neophytes in accounting. The University student of today, who has had very little contact—if any—with business, and who is not as mature as the veteran of five years ago, may flounder in attempting to swim up this accounting stream. This may not be true in many cases—particularly if the students are juniors, seniors, or graduate students—and may be prevented in other cases with close guidance by the accounting instructor. Small reading assignments with fairly heavy problem assignments may be made at first, until the student "gets his feet wet"; then larger assignments may be made.

Other adverse criticisms are small in nature and relatively insignificant. For example: the authors' treatment of income taxes as a distribution of income appears to be contradictory to former statements of principles. An expense produces revenue. To the extent that income taxes are expended to produce capital goods—which facilitates the production of revenue—and for consumer goods, a channeling process is started with each business organization being the recipient of the larger amounts of revenue. Therefore income taxes are as much an expense as any other tax. The fact that the base of the tax is the net income appears not to alter this fact.

The authors in their discussion of sources and applications of funds, chapter 28, still hold to the outmoded reversing technique of making eliminations and adjustments. The direct approach concocted by William J. Vatter is much simpler. An alternative to the direct approach is Finney and Miller's adaptation of Vatter's method using a work sheet.

In the opinion of the reviewer, *Fundamentals of Accounting* is an excellent first year accounting text. Perry Mason—somewhat like his counterpart in fiction—and Sidney Davidson are certainly masters of solving the accounting mysteries. This text is a valuable part of accounting literature.

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Principles of Accounting—Introductory. Fourth Edition. H. A. Finney and Herbert E. Miller. (New York: Prentice-Hall, Inc., 1953. Pp. xviii, 716. $5.95.)

The introductory accounting text under review completes another revision of the familiar three-volume Finney *Principles of Accounting*, now better known as the Finney-Miller series because of the addition of Professor Herbert E. Miller, of the University of Michigan, as co-author.

The authors state in the preface that "it is important to acquaint the student, at the very earliest possible point in the course, with the entire cycle of bookkeeping procedure." This is accomplished rather neatly in four chapters of fifty-five pages by the skillful avoidance of extended discussion or excessively detailed illustrations, by the elimination of any involved or controversial transactions, and by the selection of a simple service corporation, in this instance a television shop, which sells sets on commission and performs restricted repair and installation service. The system of debit and credit analysis is derived from the familiar account form balance sheet. Admittedly, it is desirable to cover the fundamental mechanics of the cycle as quickly as possible. If too much time is devoted to this part of accounting, it may be rather difficult for the instructor to sustain a high level of interest in the subject matter.

The next two chapters (5 and 6) are devoted to the accounting for merchandising operations and both the perpetual and the periodical inventory methods are incorporated. The typical forms and procedures used by business to buy, pay for and sell materials and services are illustrated and discussed. The seventh chapter touches on a variety of miscellaneous topics such as discounts, allowances and returns, accounting for bad debts, depreciation, payroll taxation, and statement classification. The first seven chapters in effect form a unit; after having completed the seventh chapter, it should be possible, if desired, to vary the order in which

the remaining topics are taken up, within reason. There are two chapters (8 and 16) devoted to individual proprietorships and partnerships and three chapters (17, 18, and 19) to corporations. Four chapters (10, 11, 14, and 20) cover the design and operation of specialized journals and ledgers, including the voucher system. There is a chapter (15) on alternative adjustment procedures, a chapter (12) on departmental operations, and a chapter (9) on promissory notes. Several chapters discuss balance sheet categories in some detail: there are three chapters (22, 23, and 25) on current assets, one chapter (24) on fixed assets and one chapter (21) on fixed liabilities. Also included are two chapters (13 and 28) on manufacturing, one chapter (27) on statement analysis, and one chapter (26) on the theory and principles of accounting, although there is presentation of background material throughout the text at appropriate points which might well be called part of the theory of accounting. The text concludes with three appendices covering payroll matters, locating errors, and the preparation of monthly statements when books are closed annually. The *Introductory* covers all the topics covered in the typical first year course in accounting, and while this volume is part of a series, it does not make mandatory the use of the remaining volumes of the series.

An introductory text of necessity must devote a lot of space to what is ageless, basic or non-controversial in nature. Where the authors go beyond this basic material, their point of view might be characterized as traditional or conservative in the sense that they apparently wish to present the currently acceptable general principles of accounting. Where applicable, the research bulletins of the American Institute of Accountants are favorably quoted, and, when appropriate, the current practice of using alternative procedures for the same phenomenon under varying conditions is illustrated. For example, discounts are discussed in several parts of the text with different approaches offered depending upon circumstances. A conservative approach is evident also in the retention of the term "Earned Surplus" because "insufficient time has elapsed to determine the extent to which the recommendations of the Committee may modify traditional terminology" and also by the continued use of "Reserve" although it is stated that "some accountants prefer the account title, Allowance for Depreciation."

A major change from the preceding edition and a decided improvement is the question and problem section of the book which covers a bit over 200 pages. This material is carefully coordinated with the text.

The users of the third edition of *Introductory* will be quite comfortable and at home with the fourth edition. As was true in the past, the text is well written, the subject matter is clearly and competently presented, and the accounts, forms, entries, and other material are amply illustrated in a manner which should prove to be of real help to the student. As was true of the preceding edition, the current edition must be given serious consideration whenever the adoption of an accounting text is being contemplated.

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Accounting Principles. Sixth Edition. Howard S. Noble and C. Rollin Niswonger. (Cincinnati: South-Western Publishing Company, 1953. Pp. 687. $5.00.)

This is the 1953 edition of a text begun by James O. McKinsey in 1931 while he was Professor of Accounting at the University of Chicago. Howard S. Noble collaborated with Mr. McKinsey in 1935 to prepare the third edition, forerunner of the present text.

The previous (fifth) edition underwent a thorough house cleaning; those who liked the fifth edition will find the sixth even more to their liking, and many who have not used the previous edition should give the present revision careful consideration.

The accounting teacher who has used and examined various books in the elementary accounting field knows that there are a number of good, teachable texts. Almost every publisher of business texts has at least one elementary accounting text, if not a series. Practically all of these have been written or revised in the past few years. In examining the texts currently on the market, one finds a great similarity in general outline and in objective—that of giving the student an understanding of double entry bookkeeping and basic accounting concepts, and some knowledge of the voucher system, costs systems, budgetary accounting, analysis of financial statements, etc. The Noble and Niswonger *Principles* should certainly be placed at or near the top of this list of books, because it fulfills these objectives in an effective and lucid manner.

Particularly outstanding are the three introductory chapters, the first of which is a good, general statement of business and accounting. The other two familiarize the student with the terminology of the balance sheet and the profit-and-loss statement. The authors do not merely present balance sheets and profit and loss statements, they define all of the accounts, explain and illustrate the use of the basic tools of statement analysis, and drive home the all-important message that the principal use of accounting is for management purposes. The authors follow this introduction with a very effective outline covering in the first 16 chapters double entry bookkeeping, accounting forms, statements, and basic accounting theory as it applies to deferred and accrued items, current and fixed assets. Each topic is clearly explained and carefully illustrated. The authors have used realistic examples in both their illustrations and problems and have made an effort to design their special journal forms in a practical manner. They have brought their materials up to date to include the latest pronouncements of the American Institute of Accountants, and the latest regulations pertaining to payroll and income taxes.

Probably the most outstanding feature of this text is the careful coverage given to payroll taxes, property taxes and income taxes. Basic knowledge of all these is essential for students of business.

To illustrate a few of the changes made in the new edition:

(a) Prepaid expenses are classified as current assets rather than as deferred charges.
(b) The term "allowance" is used instead of the term "reserve" in such account titles as Allowance for Bad Debts and Allowance for Depreciation.

(c) Collections received in advance for goods or services due in the next fiscal period are classified as current liabilities rather than in a separate category as deferred credits to income.
(d) The handling of adjustments for deferred and prepaid items which have been charged to expense is clearly illustrated.
(e) The problems have been made a little more difficult.

The last change, (e), is important, because in the past I have found it necessary to supplement the problem material in the first half of the course. This will not be necessary with the new edition.

This text will continue to dominate the beginning accounting textbook field.

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Intermediate Accounting-Comprehensive Volume. W. E. Karrenbrock and Harry Simons. (Cincinnati: South-Western Publishing Company, 1953, Pp. v, 947. $6.50.)

Intermediate Accounting-Comprehensive Volume is designed, according to the authors' statement, to serve the dual purpose of meeting the needs of those accounting students who will take only one course beyond their elementary principles and, secondly, those who plan to major in accounting. This text appears to be particularly well adapted to meeting the needs of this latter group.

For those who are acquainted with the authors' 1949 edition of *Intermediate Accounting* it might be helpful to indicate that *Intermediate Accounting-Comprehensive Volume* contains nearly sixty percent more pages of material and an increase of forty percent in the number of chapters. The general range of subject matter does not differ significantly from the earlier edition, but the comprehensiveness of the materials covered has been vastly improved. This text provides ample well-written material for a full year course in intermediate accounting.

While one may not always agree with the pronouncements of the American Accounting Association, the American Institute of Accountants, and the Securities and Exchange Commission relative to accounting practices it must be admitted that such recommendations have an important influence on the thinking of practicing accountants. Therefore, it is this reviewer's opinion that it is important to point out to students the recommendations of these groups in so far as they affect accounting principles. In *Intermediate Accounting-Comprehensive Volume* every effort appears to have been made to incorporate into the textual material the pertinent recommendations and definitions of the A.A.A., A.I.A., and S.E.C.

The twenty-eight chapters are divided into five parts, as follows:

Part I—Fundamental Processes
Part II—Working Capital Items
Part III—Noncurrent Items
Part IV—Corporate Capital
Part V—Analytical Process.

Part I consists of five chapters dealing with financial statements and the fundamental accounting processes. The first two chapters on financial statements provide a good review for students entering into their second year of accounting work. Modern statement practices are presented and in the appendix the complete statements of eight different companies are illustrated. The remaining three chapters of this section deal with basic accounting processes and could be omitted by an instructor unless a more thorough review of the first year work is desired.

Part II—Working Capital Items, consists of six chapters dealing with current assets and current liabilities. A novel presentation of liabilities is used. Instead of one chapter covering all liabilities, part II included only current liabilities while long-term liabilities are reserved for Chapter 19 given in Part III. Included in the chapter on current liabilities are, among other things, discussions of payroll taxes, withholding taxes, and a number of other current liabilities not ordinarily contained in a text, such as liabilities under bonus agreements, estimated liabilities resulting from customer premium offers, guarantees and service contracts, and tickets, tokens and purchase orders outstanding.

An interesting and worthwhile presentation of the cash budget is given in the chapter on cash and temporary investments.

Eight chapters are devoted to the discussion, in Part III, of non-current assets and long-term liabilities. Chapter 17, Plant and Equipment—Revaluations, treats the subject of appraisals in an adequate manner although the reviewer wished the authors had devoted more time to a discussion of the problem of depreciation and rising prices and the concomitant need for care in interpreting the reported results of operations. This chapter also takes into account the procedure necessary for properly accounting for emergency facilities.

Part IV—Corporate Capital, consists of four chapters devoted to the problems of corporate stock and surplus. Part V includes five chapters dealing with statements from incomplete data, errors and their correction, statement analysis (two chapters), and statement of application of funds.

Important to any teacher of accounting is the quality and quantity of the problem material included in a text. The problems included in the present text average nearly nine a chapter. A definite attempt has been made to grade the problems for each chapter so that the higher-numbered problems are more difficult and provide a good test of the students' analytical ability. Fifty-eight of the problems are adapted from A.I.A. examinations.

In addition to the problem material, each chapter has a series of questions and, in addition, a series of exercises. The latter are short problems which are well adapted to classroom use.

The authors have done an outstanding job in bringing into their textbook current materials and placing it on a higher professional level. *Intermediate Accounting-Comprehensive Volume* is a worthwhile addition to our accounting literature.

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Auditing. Roy T. Culey and Royal D. M. Bauer. (Cincinnati: South-Western Publishing Company, 1953. Pp. x, 598. $5.50.)

Auditing is a new text by Roy T. Culey of Los Angeles City College and Royal D. M. Bauer of the University of Missouri. The book is attractively bound and the typography is unusually effective.

In the preface, the authors stress their attempts to incorporate the most recent developments in the field. Particular attention has been given to publications of the American Institute of Accountants, including bulletins issued by the Committees on Accounting Procedure and Auditing Procedure.

The arrangement of the subject matter is fairly standard. The first three chapters introduce the subject of auditing and the field of public accounting. The last three chapters deal with special problems, including detailed audits, credit investigations, and internal auditing. Chapters four through seventeen cover the general audit. Each of these fourteen chapters is organized as follows:

Text material
Illustrative Audit
Questions and Problems
Parallel Audit Case.

The illustrative audit is a continuous illustration which is realistic and complete to an exceptional degree. The parallel audit case is to be solved by the student, either in chapter installments or as a review problem, but the arrangement by chapters permits easy reference to the text material and the illustrative audit. The close relationship between the illustrative audit and the parallel audit case might be criticized as a teaching device, on the grounds that the arrangement encourages copying and discourages original thinking. It should be pointed out that there are differences between the two. For example, the illustration is of a manufacturer, the audit case of a merchandiser.

The questions at the end of each chapter cover virtually all of the vital points in the chapter. The coverage of the problems is almost as broad. Many of the questions and problems are taken from Institute CPA examinations.

Added to this wealth of problem material is a 40-page appendix containing two audit practice problems. The first requires both working papers and audit report, the second requires only the report to be prepared from completed working papers. Comparisons are difficult, but it is probably safe to assert that no recent auditing text is any better supplied with exercises.

The text material is well written and remarkably easy going for a college textbook. Audit programs for the various balance sheet items are spelled out simply and clearly. Illustrations are numerous, appropriate and realistic. The authors state in the preface that it has been their aim "to arrange the material in the chapters so that the maximum amount of learning may be achieved for the effort expended."

In achieving these commendable virtues for their text, however, the authors have had to make some sacrifices too serious to ignore. First, many important audit procedures are fully described, but then passed over without any attempt to justify their existence. For example, the technique of confirming accounts receivable is well covered, but there is no mention made of why confirmation is necessary, or that conceivably the auditor might satisfy himself as to accounts receivable by other means. Perhaps it is significant that the "Tentative Statement of Auditing Standards" by the Committee on Auditing Procedure is given recognition by quoting excerpts without comment as part of the introduction (pages 13–15), and is then ignored throughout the remainder of the text. Perhaps in an additional effort to remain uncomplicated, the authors have omitted any discussion of the use of statistical sampling techniques in the auditing process.

Furthermore, exception must be taken to the treatment of accounting principles in many instances. Too often is found the tendency to list alternative treatments which are found "in practice" without attempting to differentiate between the good and the bad, the new and the old, or the rule and the exception. On other occasions when the authors take a position, the emphasis is on the balance sheet at the sacrifice of the income statement. Many readers will not be impressed by statements such as "there is a tendency to eliminate intangibles from the balance sheet or to list them at nominal figures," or "—the auditor should recommend that organization expenses be written off periodically, or at once." Lower of cost or market is defended with: "Many accountants agree that this has the effect of matching costs against revenues in order that realized income may be determined properly." Discount on capital stock is "definitely a reduction of proprietorship," but is included under the head of Deferred Items and is disposed of with the statement that "there is no particular objection to the practice of writing off discount on capital stock, either at once or over a period of years, by charges to earned surplus."

To the extent that the authors have failed to integrate techniques with the accounting principles and standards on which they are based, the text falls short of the standard appropriate for the major in Accounting. However the authors have succeeded in presenting a crystal clear discussion of current auditing techniques.

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Internal Auditing for Management. Frank A. Lamperti and John B. Thurston. (New York: Prentice-Hall, Inc., 1953. Pp. x, 500. $5.95.)

This book is not only a comprehensive treatise on the whole subject of management control, but a well-indexed working tool that should prove helpful to those interested in the vital field of internal auditing.

The authors trace the history of scientific management since the early days of our industrial economy and show how the spotlight of attention has shifted from one area of management (or "cycle") to another. They start with the days when, with cheap power and manpower, the production manager was king and had

only one concern—getting out the product. They then briefly review the subsequent cycles and quickly lead up to the "Management Control Cycle" on which the spotlight is presently focused. It is during this cycle that the authors expect internal auditing to gain more and more acceptance as a tool for scientific management.

The principles of organization, defined as the "Keystone of Control," are clearly and concisely summarized and the internal auditor is given a foundation on which to build his appraisal of the adequacy and efficiency of the organization or function under review.

Of particular interest to the reviewer was the chapter on Accounting Control. This chapter points out that the major accounting efforts in most enterprises have for years been devoted to the effective use of shop labor. The internal auditor is challenged to devote the same type of forward-looking research toward the reduction of clerical costs and costs of other non-manufacturing activities, where relatively little control exists. Methods of accomplishing this are thoroughly outlined and clearly explained in a way that should help the internal auditor render constructive service to management in this field.

Other forms of management control are separately covered in additional chapters. For example, one chapter outlines the fundamentals of a practical system of budgetary control, mentions the important techniques through which a workable budgetary control system can be devised, and clearly demonstrates how the function of internal auditing rounds out budgetary control.

Another worthwhile chapter deals with control through methods and procedures, i.e., "methods engineering," the use of methods, manuals, and valuable basic rules to follow in preparing, reviewing and utilizing such manuals. Proper emphasis is given to the responsibility for ascertaining that necessary internal controls are ingrained in each procedure.

Throughout the text the reader is constantly kept aware of the authors' conception that modern internal auditing is an essential means for establishing and maintaining management control of a business—not so much an accounting function as a management control function that measures and evaluates the effectiveness of all other types of control and is concerned with the activities of the operating departments as well as those of the accounting and other service departments.

The authors strongly recommend that internal auditing not be carried on under the supervision of the Comptroller but be under the jurisdiction of a control unit of primary importance in the organization. The "control unit" is defined as a group whose basic function is management control—to act in behalf of the president in setting up and operating top-management controls on a company-wide basis—a responsibility the president cannot discharge alone. The reviewer feels that anyone reading this book will vastly broaden his conception of the scope of the internal auditing function.

Separate chapters cover the objectives and techniques of each of the following specific auditing activities: Audits of Cash, Receivables, Payrolls, and Fixed Assets; Branch House Audits; Factory Audits; and Inventory Audits. Many tips are given to help the auditor organize and operate on a helpful, efficient basis and check lists are provided for his guidance in measuring the effectiveness of each type of audit. These check lists are indeed admirable guides in planning audits.

Several chapters are devoted to the survey technique ("functional auditing"), and a number of important applications of this technique, such as the survey of internal controls from the standpoint of fraud prevention and the survey of procurement and traffic activities, are discussed in detail.

A number of appendices are included, providing tools such as a typical organization manual, a training program for internal auditors, and a typical internal auditing manual.

To sum up: One cannot read this book without forming the conviction that, as management becomes more complex with the growth of business enterprise, the internal auditor will be asked to play an increasingly important role. The reviewer feels that this book will be of great assistance to either experienced or prospective internal auditors in adequately playing that role.

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Economics

Profit Measurement and Price Changes. K. Lacey. (London: Sir Isaac Pitman & Sons Ltd., 1952. Pp. 129. 20s. *net*.)

Mr. Lacey, whose general views on this subject have been previewed in articles in economic and accounting journals, has now summed up his case for a "constant volume of physical assets" concept of capital maintenance. The result, one of the few major studies in this area which has been authored by an individual rather than a committee, is a well written analysis of the problem which arrives at conclusions similar to those reached in previous English studies. The reader cannot but be fascinated watching the arguments emerge packaged in the shiny wrappings of a fresh approach and emphasis.

The major elements of this new package are unfolded in the first seven chapters of the book. Accepting the Keynesian thesis that fluctuations in capital formation operate with a multiplied effect on national income and are thus responsible for many elements of the business cycle, Lacey is primarily concerned with the fact that in the business sector, through the accounting process, fluctuations in reported business income are "magnified" to the extent that inventory price gains and losses are included therein.

Lacey thus bases his arguments against including inventory price gains and losses as elements of business income on the undesirable consequences which follow: 1) Realized monetary income on the upswing is higher than disposable income, but the income tax load plus pressure for higher dividends tends to reduce retained earnings (business savings) below the amount necessary

to finance replacement and new investment, and thus investment outruns planned savings. The converse is true on the downswing. 2) The cyclical "overstatement" of gains and losses induces excessive optimism and overinvestment during the boom, and excessive pessimism and underinvestment during the recession, which leads businessmen to actions which intensify cyclical fluctuations. 3) To the extent that selling prices are based on cost they do not rise quickly enough during the upswing in costs, and do not fall rapidly enough during periods of falling prices. Thus when income is rising rapidly, prices do not absorb the rise and provide the savings to finance the increased investment; and when incomes are falling, prices do not fall with sufficient rapidity to move goods out of stocks. 4) The inclusion of inventory price gains in income during price rises, and the exclusion of inventory price losses during price declines intensifies fluctuations in reported income and dividends, and thus induces excessive fluctuations in corporate stock prices.

The solution with respect to inventory pricing, Lacey feels, is the use of a device which is in essence "dollar value" LIFO as now applied in the U. S. for tax purposes, except that inventories are priced on the balance sheet at currrent costs and the price gains excluded from income are carried in a "capital" reserve, to be drawn down during subsequent price declines. This constitutes a considerable improvement over LIFO in that the extent of the net price gains excluded from income are disclosed. He also espouses the idea of "replacement cost" depreciation, to be accomplished by adjusting each period's depreciation charge by an index of replacement costs, the offset to the adjustment being carried likewise to a "capital" reserve.

At times, Mr. Lacey skirts dangerously close to attributing to the mere fact of high reported incomes during price rises, and low reported incomes during falling prices, consequences for which an entirely adequate explanation exists in the form of individual business reaction to well reasoned expectations of the future.

Furthermore, by anchoring his arguments firmly in the relation between income measurement and trade cycle theory, it is inevitable that his case becomes to some extent a case for *any* income smoothing device. To the extent that reported income influences business investment and saving decisions, any means of reducing reported profits during the boom and increasing them during recessions is a counter-cyclical weapon. At what point this line of argument becomes a case for reporting, not what has happened, but a result which will stimulate a presumably desired social action is difficult to say.

Perhaps the weakest phase of Lacey's argument arises when he examines his proposals in relation to income taxation—for here he is on the horns of a dilemma. Counter-cyclical fiscal policy calls for higher taxes during periods of boom and inflation and the reverse during periods of recession and deflation. The adoption of Lacey's proposals for tax purposes works at odds with this particular counter-cyclical weapon, and he is hard put to fit his tax arguments into the case he has constructed.

Mr. Lacey's approach is scholarly and thorough. He provides persuasive answers to most of the arguments against his proposals. This is a highly readable and vigorous contribution which must command our respect, whatever position we may espouse in the controversy.

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A Study of Aggregate Consumption Functions. Robert Ferber. (New York: National Bureau of Economic Research, 1953. Pp. 72. $1.50.)

The three driving forces of economic activity are consumers' demand, businessmen's investment, and government policy. The last of these is beyond the purview of economics; the first two are high on the agenda of economic research.

Dr. Ferber is concerned with consumers' demand and, in particular, with consumption functions, that is, formulas expressing the relationship of total consumption to the economic variables which influence it, such as national income, population, the price level, gradual changes in consumption habits, etc. Since there is a large number of factors which influence consumption, the number of plausible consumption functions which can be conceived is vast and the number which have actually been proposed and tried is considerable. Dr. Ferber has performed a valuable and constructive piece of research by bringing together and comparing fourteen previously proposed consumption functions plus sixty which he computed especially for this study.

The heart of the study is the systematic comparison of seven major hypotheses: (1) consumption depends only on income, (2) consumption depends on current income and previous year's income, (3) consumption depends on income and population, (4) consumption depends on income and a gradual trend effect, (5) consumption depends on current and previous year's income and on a gradual trend effect, (6) the ratio of consumption to income depends on the ratio of current income to previous peak income, (7) the ratio of consumption to income depends on the percentage excess of previous peak income over current income. Each of these hypotheses was tested in four variants: (a) taking the data as they came, (b) adjusting the data for changes in the price level, (c) placing the data on a per capita basis, (d) making both the price and the population adjustments. Finally the formulas were fitted to observations for three periods, all selected from the interwar period. (This gives a total of 84 consumption functions. Only sixty were actually computed because not all of the variants are appropriate to all of the hypotheses. For example, the reduction to a per capita basis is not appropriate to hypothesis No. 3.) Thus the scope of the study was large, though it did not come close to exhausting the field of important possibilities.

A linear formula expressing each hypothesis and variant was fitted by least squares to appropriate interwar data and tested on the basis of its accuracy in predicting consumption in the years 1947–1950. In addition, fourteen consumption functions recommended by other investigators were subjected to a similar test.

Ferber found that none of the consumption functions tested was very reliable but that the hypotheses which included the effects of previous peak income led to the best results.

This monograph is a compendium of consumption functions and, as such, of interest to all who are concerned with estimating consumption or the determinants of national income. It does not, however, advance notably the problems of understanding or of forecasting consumption. This limitation is the result of several aspects of the research. In the first place, the plan of research was to test a large number of alternatives empirically without having much of a conceptual basis for choosing among them. Even if an adequate test could be found in the absence of a theoretical basis, the number of alternatives to be considered is so great that no such program can do more than scratch the surface. Let us list just a few of the factors influencing consumption which Ferber was not able to include in his program: the distribution of income among the members of the population, the structure of prices, the level of interest rates, the value of assets in the hands of consumers. All of these are possibly important variables, both singly and in combination with each other and with the variables which Ferber did use. Furthermore, there is no logical reason why the search should be restricted to linear functions. Truly the field to be investigated is so vast that just trying good ideas, even systematically, is not likely to result in the discovery of an outstandingly satisfactory function, even if there is one. As a consequence all that can be said is that hypothesis No. 6 performed better than the other hypotheses which Ferber has tested, and the search must still go on.

Second, Ferber's criterion of success is subject to some doubt. World War II changed many things and perhaps it changed the relationship between consumption and its determinants. The war left incomes and prices at new high levels. In the course of the war, the income distribution altered noticeably, assets piled up in the hands of consumers, the tax structure was transformed, the price structure was changed radically, an acute housing shortage developed, new products were introduced, and much more. Is it reasonable, then, to expect a consumption function to survive all that? On the contrary, one would expect that a function which was appropriate before the war to fail to apply afterwards, and vice versa. Yet Ferber's test was to judge a function good to the extent to which it predicted postwar consumption on the basis of prewar relationships.

In short, we must be grateful for Dr. Ferber's work and glad to have his results, but we cannot accept his evaluations.

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Berkeley

Economics of Business Enterprise. Leonard A. Doyle. (New York: McGraw-Hill Book Company, Inc., 1952. Pp. xiii, 343. $5.00.)

This book is an interesting combination of economic analysis applied to business enterprise and an appraisal of the operation of the American economic system. Written primarily as a text for upperclassmen and graduate students in business administration, it seeks to present economic analysis in terms of techniques which are or may be useful in the actual conduct of business affairs. The emphasis throughout is on price and output decisions. Price decisions involve the nature of market demand and the character of prevailing competition, so appropriate attention is given to these factors in price policy. Among the topics considered are the advantages and limitations of "pure" competition, the behavior of market demand and incentives to avoid pure competition, imperfect competition among small enterprises, large-scale operations, monopolistic pricing, and price discrimination. Output decisions involve relationships between cost and revenue and relate to maximizing revenue and minimizing cost. Owing to the great significance in a developing economy of the ability of firms to reduce cost over time, very considerable attention is given to cost behavior both under static and dynamic conditions. Techniques of cost analysis are provided as well as procedures for comparing costs under alternative methods of operation.

One will find many economic situations analyzed in terms of the conventional unit-cost and unit-revenue curves. But the emphasis is on variations of the total revenue and the total cost technique incorporated in the break-even chart and the profit graph. Charts indicating the relationship between chrnges in revenue and changes in cost are found to be a satisfactory method of approximating the marginal analysis, an analysis which the author believes can make a valuable contribution to the practice of formulating business policy. It is quite apparent, however, that the data needed by businessmen to ascertain the margin which may be contributed by a given program are often nonexistent or of doubtful accuracy. This does not invalidate the marginal analysis, as the author often points out, but indicates the desirability of obtaining the required information upon which to base practical decisions.

Using a dialogue technique, Professor Doyle starts off his discussion with an imaginary trial in which the private-enterprise system is charged with the major crime of suppressing competition and promoting monopoly. Specific adverse consequences of this monopolistic behavior are alleged in the indictment to include the suppression of new products, administered prices, wasteful use of resources through advertising and unemployment, inadequate housing, insufficient food at reasonable prices, and undue influence over government and education. At the end of the volume, the author ventures answers to the charges. He finds that the contention that business enterprise tends to suppress competition is true to only a limited extent. Alleged consequences such as inadequate supplies of essential products and insecurity are attributed to the fundamental economic problem of scarcity and not to deficiencies in the capitalistic system. It is to be expected that firms will seek to maintain profits at a high level in an economy based on the profit motive. They have succeeded in doing so in many instances either through cost reductions emanating from technological change

and large-scale production or through product differentiation and the exploitation of the elasticity of demand. Free entry is essential. Some concern is expressed about patents and large advertising outlays as factors making for restriction of entry. Public vigilance is necessary to curb abuses of power by large-scale enterprise and to limit profits in excess of those sufficient to maintain investment. Continued profits in an industry are warranted only as a result of sustained progress in technology and the improvement of products.

Professor Doyle has here presented a valuable attempt to integrate economic analysis and business administration. He does not try to cover the whole field of theoretical economics, even though a consideration of distribution, business cycles, and national income would be useful to businessmen. Particularly good are the chapters on the marginal analysis and practical business operation, price and output decisions for the multiproduct firm, transport costs and pricing policies, and price discrimination. The exposition is clear and the book bears many marks of originality and imaginativeness. But the reader will not find it an easy book. He will have to apply himself assiduously to master much of the analysis.

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Price Practices and Price Policies. Jules Backman. (New York: The Ronald Press Co., 1953. Pp. xx, 660. $8.00.)

Professor Backman in this book has compiled not only many of his own comments concerning prices and price policies, but also those of other business leaders and economists. It is refreshing to have in one volume such as this, the very frank contradictions which arise honestly among people who know what they are doing but view problems from varying backgrounds of experiences and training.

To the lay person the book answers the problem of actual current pricing practices in language that is understandable. For instance, the reviewer with an engineering background and very little economic theory has an almost impossible task when he tries to get his answers from books which basically encompass only the economic theory. Backman has been astute enough to mix his theory and practice.

In Chapter 5, Backman and others discuss the relationship between price and costs. After reading the chapter one comes to the conclusion that costs, in most cases, are not the determining factor in setting prices. In fact, quoting from page 137, "the importance which is ascribed to cost depends upon the conditions at the time the prices are being established. At the present time, costs are beginning to play a more important part in pricing than they did, for instance, in 1947." The authors make it quite clear that in some cases using costs as a basis for price determination becomes more a socially accepted justification then being the actual or better means of pricing.

The discussion about *Protection Against Cost and Price Changes* in Chapter 8 goes into the theory of hedging together with examples, the price guarantee method, cost-plus means of protection, and other specific forms. Actually, in perusing the various authors, one concludes that there are no foolproof means other than being sure that you keep your costs below the selling price as much as possible commensurate with the competitive situation in existence.

A very thorough review of the Antitrust Laws, together with the obvious confusion that exists as to their interpretation, is given in Chapter 9. The discussion on page 256 by Thomas E. Sunderland entitled *The Illegality Per Se Doctrine* is well worth reading. He shows how the *per se* doctrine has been extended into very controversial areas. Various other cases are discussed in this chapter in order to give examples which can be used by the reader in making his own interpretation as to whether or not his practices are in violation of the antitrust laws.

Chapter 10 continues with *The Robinson-Patman Act and Price Discrimination.* Here the cases cited may thoroughly confuse the innocent reader concerning his practices. In fact, Chapters 9 and 10 help clarify the picture regarding antitrust and unfair competition in that they show how utterly confusing have been the courts' decisions.

Part IV of the book covers *Pricing in Specific Areas: Goods and Services.* Chapter headings include: Agricultural Prices, Prices of Manufactured Goods, Retail Pricing, Public Utility Pricing, Pricing of Insurance, and Fees for Professional Services.

Part V goes into *Government Price Fixing.* It includes all of the arguments, pro and con, covering the efforts of the Government to affect the inflationary trend. Instruments of Control are discussed starting on page 559. The methods used by the Government to fix prices are also given treatment in this section.

I recommend this book to people interested in pricing. I believe it left me in a position to intelligently discuss the subject.

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Politics, Economics and Welfare. Robert A. Dahl and Charles E. Lindblom. (New York: Harper and Brothers, 1953. Pp. 557. $5.00.)

In this book, a remarkable achievement, two Yale professors have analyzed and appraised politico-economic techniques. They have started with the basic assumption that "the prime goals of human beings in Western societies include existence or survival, and physiological gratifications through food, sex, sleep and comfort, love and affection, respect, etc." Seven goals govern the degree to which these prime goals are attainable. "These seven instrumental goals are freedom, rationality, democracy, subjective equality, progress, and appropriate inclusion." "Appropriate inclusion" means the inclusion of other nations or states in the effort to attain the seven goals.

The processes "through which the seven values

[goals] . . . can be maximized whenever scarce resources are significantly involved . . . " are "the price system, control by leaders (hierarchy), control over leaders (polyarchy), and control among leaders (bargaining)." These social processes (called central processes) facilitate "rational calculation" and "control" and the seven indispensable "instrumental goals."

A lengthy discussion of the four social processes is followed by several chapters on the politico-economic techniques; the "central core" of the book is contained in the last chapter, modestly named "postcript." Throughout, the authors stress that any complex society must make use of all four "sociopolitical processes" or face a seriously impoverished economy. Embodying the concept of control into the term "economizing," the authors cite six necessary processes: distribution of claims and resources; stabilization; choice; allocation; resource development; high resource output.

The first central process, the price system, is analyzed as "a process of control over leaders by non-leaders, control over non-leaders by leaders, and control over leaders by other leaders" (p. 175). One could classify the United States as essentially a market society, that is, one in which important decisions are made primarily by business leaders controlled largely through a price system. The price system simplifies the economizing process. Its "characteristics are free consumer and occupational choice, specific control to compel entrepreneurs to respond to the consumer and occupational choice" (p. 177).

The price system, however, like all controls, functions imperfectly. The control of the price system operates largely through money rewards and penalties and both can be manipulated (p. 233). Furthermore, covert and actual monopolies distort the functioning of the price system and the influence of the consumer on the entrepreneur is distorted by advertising, which (p. 415) often misinforms, obstructs rationality, and influences the creation of wants, preferences and norms. In the competitive market as in politics, the information provided is "heavily interlarded with misinformation." The consumer, like the voter "runs a great risk because he often cannot distinguish or does not wish to distinguish truth from falsehood . . . " (p. 416). In this matter the reviewer agrees with the authors that consumer research and regulation of advertising practices may raise the level of rationality. This reviewer, incidentally, is particularly perturbed about the excesses of advertising in the field of investment counseling.

The second central process which should contribute to the maximizing of the seven values, the control by leaders or hierarchy, shows its shadowy sides, namely, the use of "money, propaganda, threat to withdraw skills, hiring and firing, promotions and demotions" (p. 259) used not only to maintain control within the hierarchy but to prevent effective control by outsiders. However, "most Americans seem to have accepted the fact of hierarchy without quite being aware of it. By now, Americans have been pretty well 'broken' to hierarchy; and social indoctrination increasingly facilitates the role Americans play in hierarchical organizations" (p. 232). Hierarchy has proved to be indispensable for the efficient functioning of business and government.

As minor costs of hierarchy the authors mention red tape, "passing the buck," reluctance of individuals to make decisions, inflexibility, impersonality, excessive centralization. The major costs are failure to economize, inequality, and difficult control. Nevertheless, in discussing the rational use of hierarchy, the authors mention that waste in government can be cured by carefully drawn rules and regulations (p. 263), and by decentralization.

Under "polyarchy," the third central process, the authors mean a political system in which the non-leaders exercise a high degree of control over governmental leaders (p. 277). The U.S.A., Britain, France are polyarchies, while Soviet Russia evidently is not. Due to the enormous concentration of power in the hands of relatively few, the first problem of politics (p. 273) is "how citizens can keep their rulers from becoming tyrants" and remains as timely as ever. As long as it remains "profoundly immoral for a defeated government to attempt to stay in office" (p. 288), the danger is not too great. However, a "nation that begins seriously to discuss whether there will be another election is not likely to have one," unless the election is the "progressive" type of referendum, where everybody is requested to raise hands to give formal assent to the perpetuation of arbitrary tyranny. Polyarchy (p. 309) "requires a high degree of political activity. Enough people must participate in the governmental process so that political leaders compete for the support of a large and more or less representative cross section of the population."

Bargaining, the last of the four central processes mentioned above, is used by the authors in the sense of "control among leaders." It is governmental and political bargaining (p. 325). "This kind of bargaining is indispensable to polyarchy. . . . It is the process through which decisions about scarce resources are arrived at." The bargainers are party leaders, leaders of government bureaucracies including the President, all politicians, opinion leaders including publicists and editors, prominent persons like Baruch, Hoover, etc. "Bargaining is made necessary, possible and profitable by social pluralism-interdependence, disagreement against a background of basic agreement. . . . " Bargaining takes place because leaders disagree but expect to arrive at an agreement, at a compromise. The fields in which bargaining takes place are numerous. The most important is perhaps the Budget. Bargaining is envisaged as a form of reciprocal control among leaders and as a method of coordinating hierarchies. An apprasial of the recent German trend towards co-management (*Mitbestimmungsrecht*) is endeavored and the assumption made that perhaps co-management may have a sobering effect that can never be achieved through collective bargaining (p. 477). The quest for some form of workers' participation may be sought in the desire to "legitimize the role of management" (p. 480).

It is correct that "most Americans feel that big business is too powerful; they are worried much more about the power of businessmen than the power of government" (p. 481). At the same time it is also true that "control of union leaders is even more disturbing to most Americans than is the control of corporate management" (p. 497). Therefore, as gigantic groups

are here to stay, "government must engage in horse trading with corporations, trade unions, farm organizations, and other groups with control in society" (p. 489). Some groups have no organization to defend their interests, "hence government must be able to enter the bargaining arena and bargain for the goals of such people" (p. 508).

In the "postscript" chapter, according to the authors the central core of man's rational calculation and control over his environment is made up of the three following beliefs:

1. Belief in the desirability of extending freedom as far as possible.
2. Belief in the acceptance of the equal value of each individual in his claim to freedom.
3. Belief in the possibility of achieving progress in extending freedom and equality through man's capacity for rational calculation and control (p. 516).

Having labored through eighteen chapters and five hundred pages, the authors seem to face a dilemma. They say frankly that "it might well be argued that concern with social processes such as price system, hierarchy, polyarchy and bargaining is concentration on wrong means" (p. 518). They say that these instrumental techniques are remote from the prime goals, such as dignity, respect, love, affection, solidarity, friendship. The reviewer is of the opinion that some instrumental techniques are necessary for the analysis of the complex problems involved and that the authors have fared well with the chosen techniques. Better and more highly developed ones may emerge in the future. The authors are correct in stating that neither classic liberalism nor classic socialism have reached the core, which is identical to both, namely the "grand strategy of rational democratic social reform." Both have underestimated the extent to which industrial society requires hierarchy (p. 511), both have claimed too much for the competitive price system, both underestimated the function of private property.

A solution to the problems of poverty, economic insecurity, maldistribution of income, hierarchical controls, governmental techniques is rightly stressed as the prime goal. "Small group" association and the "planning of personalities" are suggested as directions of future reform. Small groups are for most people the "meaningful centers of life," for on small groups most people must rely for love, affection, friendship, the sense of belonging and respect (p. 520). The planning of personalities is a much more complex problem. What kind of democratic personality do we want? The totalitarians have tried to form personalities: shall the same endeavor be undertaken by democracies or is the general framework of our society sufficiently influencing of character and personality?

This treatise is a distinctive contribution to the field of welfare politics and economics. The authors have ranged from Aristotle to Kant, from Adam Smith to Pigou and Schumpeter, from Marx and Lenin to Orwell and Koestler. They have touched upon most of the chords of modern thought. The value of their work lies in the correlation of these thoughts and ideas from the point of view of politics, economics and welfare. The reviewer is convinced that the book will be discussed and studied in the years to come by economists and political scientists and that it will inspire much further research.

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Finance

Fundamentals of Corporation Finance. Joseph F. Bradley. (New York: Rinehart & Co., Inc., 1953. Pp. xviii, 583. $6.00.)

This textbook should prove a valuable addition to a field in which there is, however, no dearth of books at the present time. It is a readable and simplified discussion presented from the investment and management points of view, covering much of the material conventionally considered to lie within the boundaries of corporation finance.

The most important virtue of the book is the ease with which Professor Bradley expresses himself. His style is lucid and he possesses the enviable ability of treating somewhat complex topics in such a simple and straightforward manner that his readers should be able to grasp his explanations readily. The fact that he is directing his comments to students whom, he assumes, probably had little or no work in accounting and law, permits him to by-pass certain complex topics which are commonly included in more complete texts.

The readability of *Fundamentals of Corporation Finance* is enhanced by its typographical format. The type is large and the margins are wide. None of the twenty-six chapters is particularly long and each is broken into numerous divisions and subdivisions with headings in large italics and boldfaced type respectively. There are nine topical sections consisting of from one to nine chapters, each of which is appropriately titled.

Professor Bradley, in the preface to his book, states that he has written for students rather than teachers. Perhaps in keeping with this objective, each chapter opens with a short summary of the topics to be covered and closes with a few italicized paragraphs headed "Highlights" which recapitulate what was in the chapter. The reviewer doubts if this repetition is helpful to students; as a matter of fact, it is an open invitation to study only the summaries, and it detracts from the pleasure of reading the book.

The author explains that he obtained considerable data for his book while holding a fellowship from the Joint Committee on Education Representing the American Security Business. This perhaps explains in part why the text emphasizes those particular aspects of corporation finance that are of greatest interest to investors. *Fundamentals of Corporation Finance* is, in many ways, suggestive of "primers on securities" prepared by some investment houses. There are many references to specific security issues which excellently illustrate the points the author has under discussion

and give the impression that Professor Bradley is well informed on the details of a wide variety of security issues presently outstanding. It might be noted that most of these references are to the securities of corporations whose stock is widely held; little attention is given to small corporations or those having few stockholders.

The emphasis upon the management viewpoint is less obvious than upon that of the investor, but it is by no means neglected. For example, the point is made very early that much of corporate financial policy is related to the planning of the cash income and outgo of the business and a good but brief discussion of both financial and cash budgets is found on pages 60 through 63. The importance of proper planning to provide the right amounts of both circulating and fixed assets is stressed in many places.

The topics covered by *Fundamentals of Corporation Finance* are much the same as those treated by the majority of other texts in the field. The titles of the nine sections into which the book is divided are listed below and the number of pages included in each is shown in parentheses. This gives some idea of the arrangement of the material and relative emphases.

1. Promotion and the Forms of Business Organization (57).
2. The Raising of Funds for Business Enterprise through the Issuance of Stocks and Bonds (224).
3. The Movement of Securities from the Corporation into the Hands of Investors (82).
4. Dealings in Securities among Investors (22).
5. Financing Additions to circulating Assets (28).
6. The Measurement and Disposition of Net Profits (50).
7. Business Expansion and Business Combination (46).
8. Voluntary Changes in the Capital Accounts (12).
9. Corporate Failure, Liquidation, Reorganization (38).

Fundamentals of Corporation Finance is considerably shorter than many other texts in the same area of finance. It may be of value to point out how this is effected. Basically, it is done by the exclusion of two types of commonly covered material. (1) Virtually no historical discussions are to be found; this particular type of elimination shortens materially the sections on business organization and business combination. Also, most of the many references to existing corporations are seldom more than a sentence in length, there being few instances in which a genuine case history is used. (2) Another important type of omission is that necessitated by the assumption that many of the readers have little or no knowledge of law and accounting. (Incidentally, the author is much more successful in presenting his material so that a student not having had business law can master the book, than can one who has had no accounting.) Aside from the Securities and Exchange Act, there are almost no references to statutes, court decisions, and administrative rulings. These two types of omissions, in the opinion of the reviewer, make the text somewhat difficult to use for business and economics majors who possess any background whatever because such a heavy responsibility is placed upon the instructor to fill in the blanks.

The questions at the end of each chapter appear to be relevant to the subjects discussed in the chapter and to cover most of the important points. The publisher advises that an instructor's manual is in the course of preparation.

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Statistics

Methods of Statistical Analysis in Economics and Business. Edward E. Lewis. (Boston: Houghton Mifflin Company, 1953. Pp. viii, 686. $5.50.)

A rather lengthy text for a first course in statistics, Lewis' *Methods of Statistical Analysis in Economics and Business* follows in large part the traditional pattern of textbooks in this area. It is designed for students with an elementary background in algebra. The topics covered include the nature and uses of statistical data, tabular and graphic presentation, frequency distributions and their characteristics, statistical inference, index numbers, time series analysis, and correlation. The book is intended to be a general introductory text for economics and business students, and it discusses statistical concepts and tools without specific reference to accounting problems. Accountants would probably experience difficulty in adapting this general discussion to specific problems in accounting and auditing without additional help.

This reviewer was impressed by the quality of the physical makeup of the book. Tables and calculations stand out clearly and summaries of the formulas employed are provided. In the section on time series analysis, the author—unlike some others in this field—does not stop after isolating cyclical fluctuations but proceeds to study some of the characteristics of these cyclical fluctuations.

The sections on statistical inference and correlation are more inclusive than those found in many elementary texts for economics and business. Lewis discusses a number of significance tests—including the analysis of variance—and also considers non-linear regression and multiple and partial correlation. Unfortunately, these are the sections which, in the opinion of this reviewer, are the weakest in the book. To explain the notions of statistical inference, the various significance tests with their assumptions, and the necessary mathematical formulations in simple literary terms is not an easy task. A great danger exists in such an attempt—namely, that the explanation of these statistical concepts and tools becomes too verbose. Lewis attempts to explain them in simple language; but, it is to be feared that the students for whom this book is intended will be trapped as much by its verbiage as if the book had been written at a higher level of mathematical sophistication.

For those who expect an elementary statistics text oriented toward economics and business to teach not only tools but also their applications to problems, this book will be somewhat disappointing. In the first place,

the text is sharply divided between descriptive statistics and statistical inference. This may prevent the student from realizing that even "descriptive" statistics are often used in economics and business for purposes of analysis and as a basis for making generalizations. Secondly, the sections on statistical inference and correlation contain only few realistic problems from the areas of economics and business. To be sure, one can explain the theory of statistical inference and regression and correlation analysis without referring to a realistic example from economics or business. Is it enough, however, to understand only the statistical theory; or should a student also be shown where in business and economics this theory can be usefully employed and what special problems are encountered when applications in these areas are made? If this is not done, students who take only one course in statistics may well doubt the usefulness of statistics in economics and business.

Some of the explanations in the areas of statistical inference and correlation analysis are misleading and there are some incorrect statements. For instance, the level of significance on p. 288 should be 10% instead of 5%, and the sample size need not be at least 30 as stated on p. 195 in order that the distribution of sample means from a normal population be normal. In some places, the assumptions necessary to permit the use of a statistical technique either are not given at all or follow at the end of the discussion. In a few instances, certain tests are suggested which are valid only for large samples when more appropriate tests are available.

The emphasis upon statistical inference and the attempt to translate mathematical-statistical formulations into everyday language, which mark this text, probably point out the future trend for books in this area.

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Taxation

Effects of Taxation—Investments by Individuals. J. Keith Butters, Lawrence Thompson and Lynn Bollinger. (Boston: Graduate School of Business, Harvard Univesrity, 1953. Pp. xxxiv, 533. $6.25.)

This book is the final and most elaborate volume in the series of studies of the effects of taxation, conducted through the Harvard Graduate School of Business.

Broadly speaking, corporate funds are obtained from three major sources—retained earnings, borrowings and new equity capital. The latter is derived from the sale of common stock and other forms of risk capital. Although institutional investors are expanding their holdings of common stock, by far the larger portion of equity capital obtained from external sources is contributed by individual stockholders. Any significant diminution in the supply of capital from this source, for whatever reason or reasons, conceivably might have a profound effect on the economy as well as on the financial policies of corporate management. Accordingly, this volume concerns itself with a study of (a) the investment policies and capacities of individuals who channel their funds into common stocks and other forms of risk capital; and (b) the effects of taxation on such investment policies.

Personal circumstances, attitudes, objectives, expectations, etc., the authors point out, contribute in shaping investment policies and all must be taken into account in appraising the tax effects on such policies. As primary source material for this study, comprehensive interviews were held with a carefully selected sample of approximately 750 individual investors of substantial means. This was further supplemented by other data supplied mainly by the Survey Research Center of the University of Michigan. In the process answers to the following three main questions were sought:

1. Whose investment decisions are important?
2. How have taxes affected the investment capacity of these groups of investors?
3. How have taxes affected their investment policies?

From the standpoint of the flow of equity capital from private investors to business, the evidence, according to this study, leads to the inescapable conclusion that the investment decisions of individuals in the upper income and wealth classes are of overwhelming importance. This is supported by a detailed analysis which attempts to ascertain those groups in the population which have the capacity to invest in business equities in large amounts, and those groups which are disposed to do so. In addition, the study presents an estimate of the concentration of holdings of marketable stock among the top income and wealth group, and specifically concludes as follows:

1. Spending units with incomes of $50,000 and over—in general order of one-tenth of 1% of all spending units—held about 35% of all the marketable stock owned by private investors.
2. Spending units with incomes of $25,000 and over—in general order of one-half of 1% of the population—held slightly over half of all privately owned marketable stock.
3. Spending units with incomes of $15,000 and over—in the general order of the top 1% of the population—held about 65% of this total of marketable stock.
4. Spending units with incomes of $10,000 and over—approximately the top 3% of the population—held about 75% of all marketable stock owned by private investors.

Finally the study discloses that approximately 65% to 70% of all marketable securities held by private individuals are concentrated in family spending units with net worths in excess of $250,000.

As to the second question, an analysis of all available data leads the authors to the conclusion that the changes in the tax structure over the past 15 to 20 years have substantially reduced the capacity of upper bracket individuals to accumulate new investable funds, but that their remaining capacity is still very large. The supporting evidence includes, among other things, a specific estimate of the concentration of accumulations of new

investable funds in the upper income percentiles and a careful discussion of the means available to upper income investors for avoiding the full impact of the high personal income tax rates.

By far the largest section of the book is devoted to answering the third question—the effects of taxes on the investment policies of individuals. Included is a detailed appraisal of the general investment objectives of individuals and of their attitudes towards specific types of investments, such as marketable common stock, new issues, new ventures, family businesses, tax exemp, bonds, and life insurance and annuities. Based upon this analysis, the authors offer the following statement as the best one paragraph distillation of the findings of the entire book:

> "The tax structure, as of 1949, cut substantially into the investment capacity of the upper income and wealth classes—the strategic source of venture capital for investment in business—and, on balance, it also decreased the willingness of these investors in the aggregate to make equity-type investments. In other words, for equity-type investments considered as a whole, the investors who were induced by taxes to shift to less risky investment positions appear to have over-balanced the opposite reaction of appreciated-minded investors. The latter group, however, may have been so stimulated by the tax structure to seek out investments offering unusually large capital gains potentialities, such as promising new ventures, as actually to increase the flow of capital to such situations. However this may be, it is clear that the combined impact of these effects fell far short of drying up the supply of equity capital which private investors were willing and able to make available to business. The evidence indicates that the accumulation of investable funds by the upper income classes has been consistently large during post-war years, despite the existing tax structure, and that individuals with large incomes and substantial wealth continue as a group to hold and invest a large proportion of their funds in equity-type investments."

The empirical data on which this study is based were gathered in 1949 and the conclusions reached, therefore, relate to that period. In an attempt to bring the reader up to date, the authors discuss in general terms the changes in the tax law, underlying business conditions and investor attitudes since 1949 and conclude that their findings would have to be modified in detail to take into account the events which have occurred since 1949, but that the basic findings stated above would not be significantly modified.

This thoughtful and extremely informative study should prove of unusual interest to all serious students of the subject, particularly those in the fields of finance, taxation and political economy.

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Professor of Accounting

New York University
Graduate School of Business

TRANSFER OF THE OFFICE OF SECRETARY-TREASURER

On January 1, 1954, Mr. R. Carson Cox will succeed me as Secretary-Treasurer of the American Accounting Association and Business Manager of THE ACCOUNTING REVIEW. His address is:

Mr. R. Carson Cox
College of Commerce and Administration
The Ohio State University
Columbus 10, Ohio

After December 20, 1953, please direct correspondence to him regarding *1954 business* matters of the American Accounting Association and THE ACCOUNTING REVIEW, such as: advertising, membership applications, subscriptions, payment of dues, and orders for publications.

Continue to send *1953 business* items to me through December 31, 1953.

It has been a pleasure for the staff members of this office and for me to have served you during the past few years. Best Wishes for the New Year!

Charles J. Gaa
Secretary-Treasurer, 1950-1953